CFD-400

SERVICE MANUAL

E Model

SPECIFICATOINS

CD Player section

System	Compact disc digital audio system
Laser diode properties	
	Material: GaAlAs
	Wave length 780 nm
	Emission duration: Continuous
	Laser output: Less than 44.6μW*
	*This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.
Spindle speed	200 r.p.m. to 500 r.p.m. (CLV)
Error correction	Sony Super Strategy Cross Interleave Read Solomon Code
Number of channels	2
Frequency response	20 – 20,000Hz ± ½ dB (EIAJ)
Wow and flutter	Below measurable limit (EIAJ)

Radio section

Frequency range	FM: 76 – 108 MHz
	AM: 531 – 1,629 kHz (9 kHz frequency interval)
	530 – 1,710 kHz (10 kHz frequency interval)
Antennas	FM: Telescopic antenna
	AM: Built-in ferrite bar antenna

Tape recorder section and general

Recording system	4-track 2-channel stereo
Fast winding time	Approx. 120 sec. with Sony cassette HF60
Speaker	Full-range speakers: 10 cm dia., cone type

CD Section	Model Name Using Similar Mechanism	NEW
	Optical Pickup Block Type	KSM-2101BAN
Cassette Deck Section	Model Name Using Similar Mechanism	CFD-770S
	Tape Transport Mechanism Type	DECK A: MF-400PB-65
		DECK B: MF-400RP-65

Frequency response	TYPE I (normal) cassette:	50 – 13,000 Hz (EIAJ)
	TYPE II (CrO_2) cassette:	50 – 15,000 Hz (EIAJ)
	TYPE IV (metal) cassette:	50 – 17,000 Hz (EIAJ)

Inputs	Mixing microphone input jack (minijack)
	Sensitivity 2.5 mv
	For low impedance microphone
Outputs	Headphones jack (stereo minijack)
	For 16 – 64 ohms impedance headphones
Maximum power output	
	5W + 5W
	(at 12 ohms, 10% harmonic distortion)
Power requirements	For CD radio cassette-corder
	AC 110 – 120 V/220 – 240 V
	DC 12 V, 8 R20 (size D) batteries
	For clock/timer/memory
	DC 6 V, 4 R6 (size AA) batteries
	For remote commander
	DC 3V, 2 R6 (size AA)

– Continued on next page –

使用時は添付資料も参照のこと
Refer to the additional documents.

CD RADIO CASSETTE-CORDER

SONY®

Power consumption 35 W

Battery life

Batteries for CD radio cassette-corder

	Recording	Playback	CD playing
Sony SUM-1 (NS)	approx. 2.5 H	approx. 2 H	approx. 1.5 H
Sony Alkaline AM1	approx. 7 H	approx. 7 H	approx. 4 H

For clock/timer/memory: approx. 1 year

Dimensions 640 × 213 × 266 mm (w/h/d) (EIAJ)
incl. projecting parts and controls

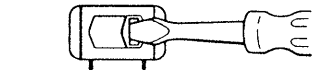
Weight 8kg
(incl. batteries; excl. supplied accessories)

Supplied accessories
AC power cord (1)
Remote commander (1)

Design and specifications subject to change without notice.

On power source

- Before operating the unit, be sure that the operating voltage of your unit is identical with that of your local power supply.
  For AC operation, use the supplied AC power cord; do not use any other type.
  For battery operation, use eight R20 (size D) batteries.
- The voltage selector is located on the rear of the unit.



- Unplug the unit from the wall outlet when it is not to be used for an extended period of time.
- When the internal batteries are not to be used, remove them to avoid damage caused by battery leakage or corrosion.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

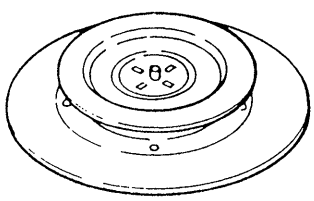
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

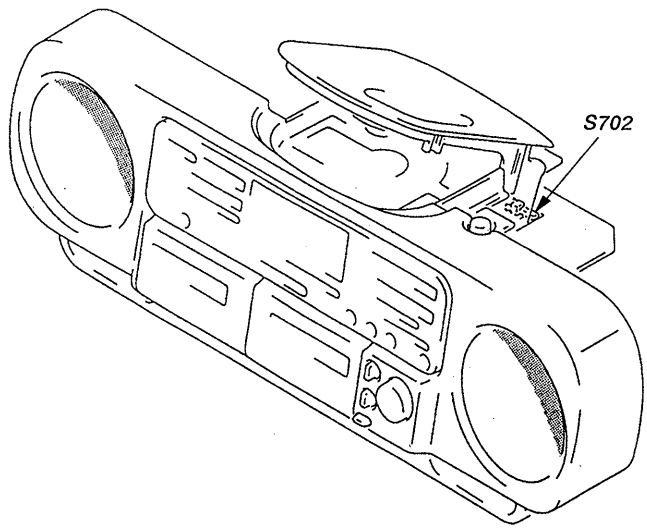
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig: X-4918-255-1



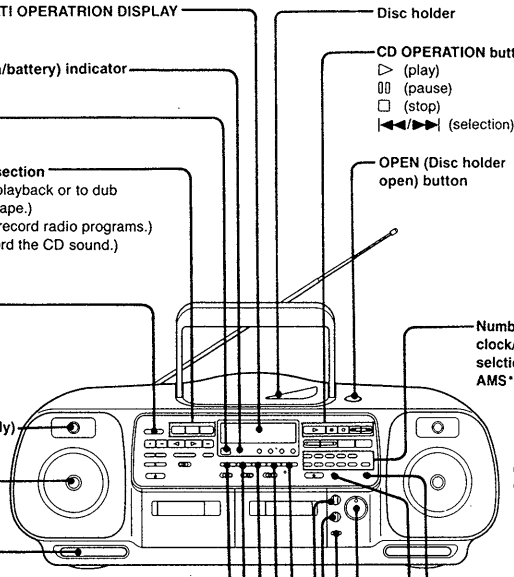
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make Function switch to CD position with no disc inserted.
2. Open the lid for CD.
3. Turn on S702 as following figure.
4. Press ▶ key.
5. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus serarch.



Parts Identification Refer to the page indicated in ● for details.

CD Player Section



TAPE/RADIO/CD MULTI OPERATRION DISPLAY

OPR/BATT (operation/battery) indicator

Remote sensor

FUNCTION selector section
TAPE (DUBBING) (To playback or to dub the tape.)
RADIO (To listen to or record radio programs.)
CD (To listen to or record the CD sound.)

POWER button

Tweeter (CFD-500 only)

Full-range speaker

Duct

EDIT/PGM (program) CLEAR button ⓳ ㉞

AUTO SPACE button ㉝

REPEAT (1/ALL) (repeat play) button ⓴

SHUFFLE/PGM (program) button ⓰ ⓲

DISPLAY button ⓬

Disc holder

CD OPERATION buttons
▷ (play)
▯▯ (pause)
□ (stop)
|◀◀/▶▶| (selection)

OPEN (Disc holder open) button

Number buttons for clock/timer/direct selction/preset tuning/ AMS* ⓾, ⓫, ㉔, ㉘

(The illustration is CFD-500.)

PHONES jack (stereo minijack)
When the headphones are connected to the jack, the sound does not come out from the speakers.

MIX MIC (mixing microphone) jack

VOLUME control ⓭

SPACE SOUND button (CFD-500 only) ⓯

MEGA BASS control ⓯

TONE control ⓯

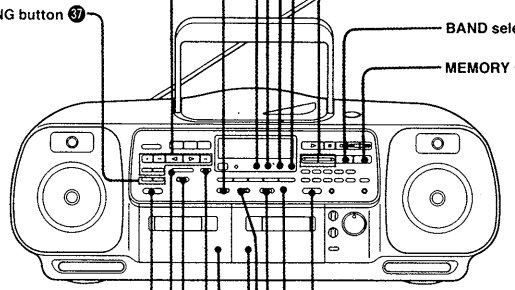
*AMS: Automatic Music Sensor

Radio Cassette-Corder and Clock Section

DOLBY NR (B type Noise Reduction) switch (CFD-500 only) ㉛
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ▯▯ are the trademarks of Dolby Laboratories Licensing Corporation.

TAPE OPERATION buttons
□ (stop)
◀◀/▶▶ (leftward/rightward fast winding)
▷ (play for reverse side)
◁ (play for front side)
▮▮ PAUSE button
● REC (record)/REC (record) MUTE button (for deck B only)

SYNCHRO DUBBIING button ㊲
NORMAL
HIGH



(The illustration is CFD-500.)

CLOCK button ⓾

TIMER button ㊳

SLEEP button ㊹

STANDBY button ㊶

TUNING button ㉒

BAND selector ㉓

MEMORY button ㉔

⏏ EJECT button for deck A

⏏ EJECT button for deck B

DECK SELECT (selection) button ㉗
To select the desired deck to operate

FM STEREO indicator ㉒
When FM broadcasting is received, it is lighted.

TIMER MODE selector ㊵, ㊷
PB/REC
To use for timer replay or recording

FM MODE ㉒
and ISS* switch ㊱

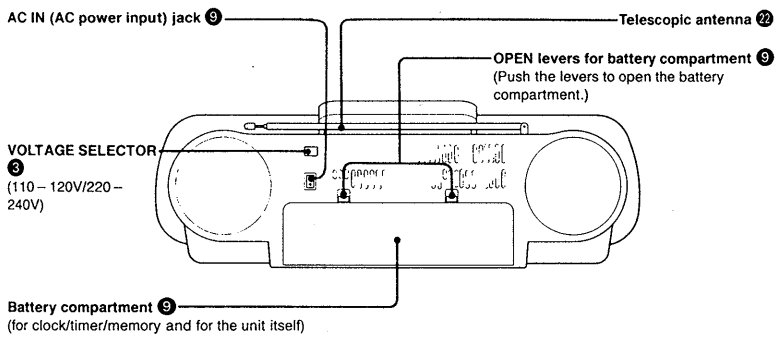
DIR (tape transport direction) MODE selector
Recording the CD sound ㉚
Recording other sound sources ㉟, ㊲
Tape play back ㉖
Relay tape playback ㉙

CD DUBBING SPEED selector (CFD-500 only) ㉛
NORMAL
HIGH

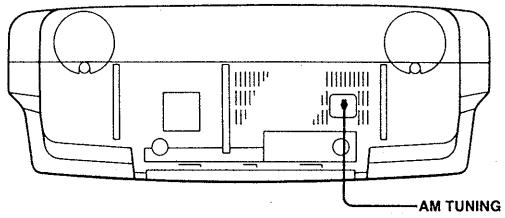
Cassette holders
Deck A/B

*ISS = Interference Suppress Switch

Rear Panel


AC IN (AC power input) jack ❾
Telescopic antenna ㉒
OPEN levers for battery compartment ❾
(Push the levers to open the battery compartment.)
VOLTAGE SELECTOR ❸
(110 – 120V/220 – 240V)
Battery compartment ❾
(for clock/timer/memory and for the unit itself)

Bottom



Note on the AM tuning interval

The AM tuning interval is preset to 9kHz at the factory. Check that the AM TUNING INTERVAL selector is correctly set to the frequency allocation system of your country. The following are the areas with 9kHz or 10kHz tuning interval:

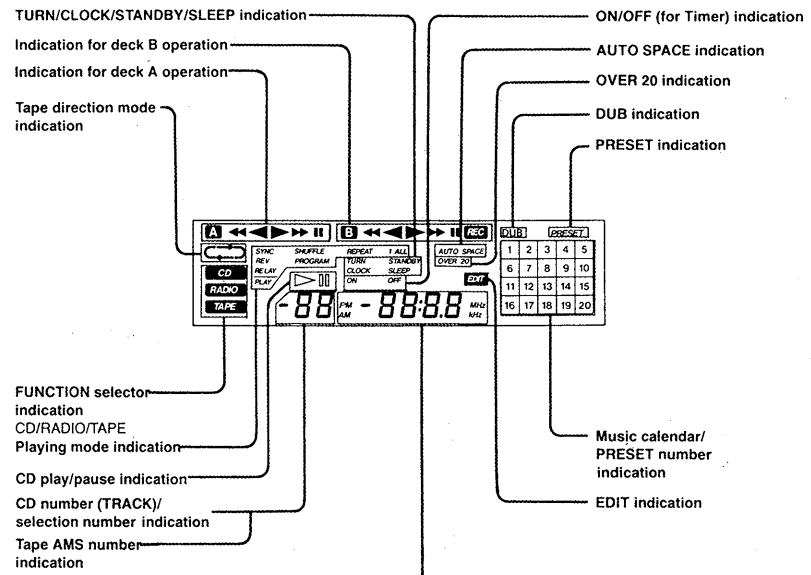
9kHz	Japan, Korea, Europe, Southeast Asian countries
10kHz	U.S.A., Canada, Central and South American countries

How to change the interval

1 Turn off the power by pressing the POWER button.
2 Disconnect the AC power cord and remove the eight R20 (size D) batteries and four R6 (size AA) batteries.
3 Change the position of the selector.
4 Wait more than 3 minutes and then install the batteries and connect the AC power cord again.

When the AM tuning interval is changed, all the memories, the current time and timer setting will be cleared.

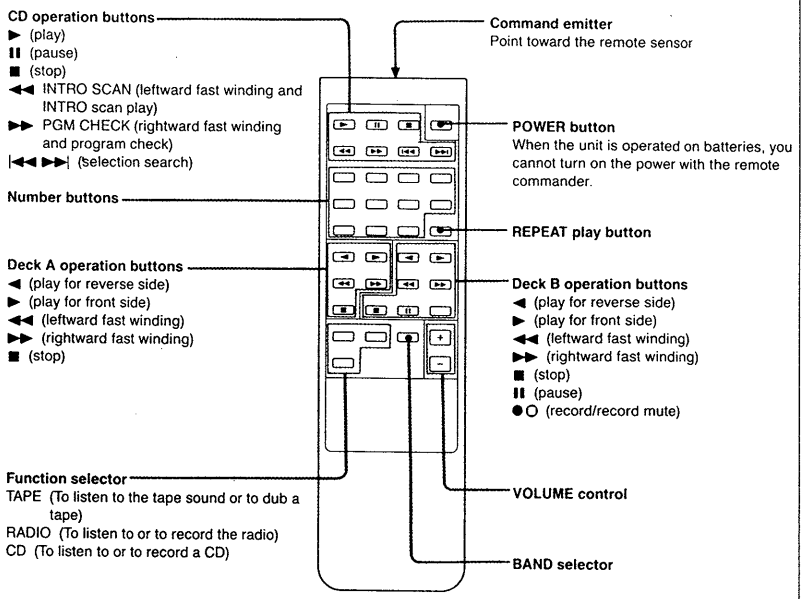
Display Section



Clock display	During CD playing	During radio reception
AM/PM indication Time indication (hour/minute)	Playing order/playing time/ remaining time (minute) (STEP) Playing time/remaining time (second)	FM/AM indication Frequency response MHz/kHz indication

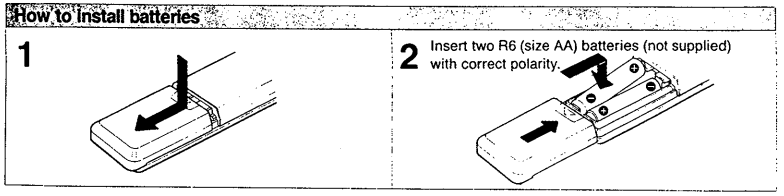
Parts Identification

Remote Commander


CD operation buttons
▶ (play)
II (pause)
■ (stop)
◀◀ INTRO SCAN (leftward fast winding and INTRO scan play)
▶▶ PGM CHECK (rightward fast winding and program check)
|◀◀ ▶▶| (selection search)
Number buttons
Deck A operation buttons
◀ (play for reverse side)
▶ (play for front side)
◀◀ (leftward fast winding)
▶▶ (rightward fast winding)
■ (stop)
Function selector
TAPE (To listen to the tape sound or to dub a tape)
RADIO (To listen to or to record the radio)
CD (To listen to or to record a CD)
Command emitter
Point toward the remote sensor
POWER button
When the unit is operated on batteries, you cannot turn on the power with the remote commander.
REPEAT play button
Deck B operation buttons
◀ (play for reverse side)
▶ (play for front side)
◀◀ (leftward fast winding)
▶▶ (rightward fast winding)
■ (stop)
II (pause)
●O (record/record mute)
VOLUME control
BAND selector

Note on the remote commander
To avoid malfunction, keep the commander away from direct sunlight or strong illumination.

How to install batteries



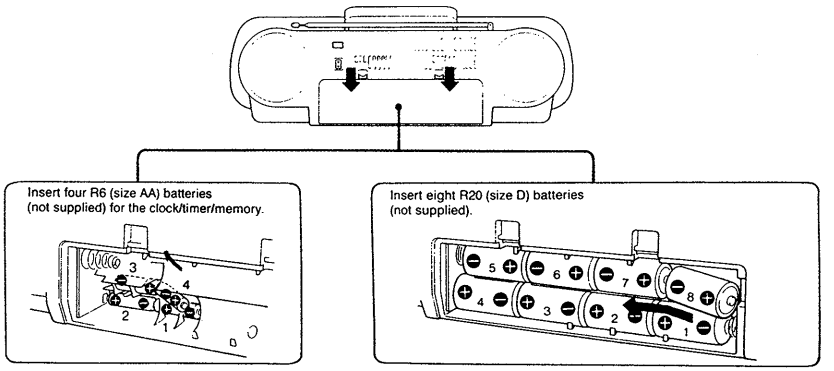
When to replace batteries
Battery life under normal use is about 6 months. When you cannot operate the unit with the commander from the distacne where you use to operate, replace both batteries with new ones.

Power Sources

Preparation: Insert batteries for the clock/timer/memory.
You can use the unit either on house current, or on batteries. In either case, be sure to insert four R6 (size AA) batteries for the clock/timer/memory.

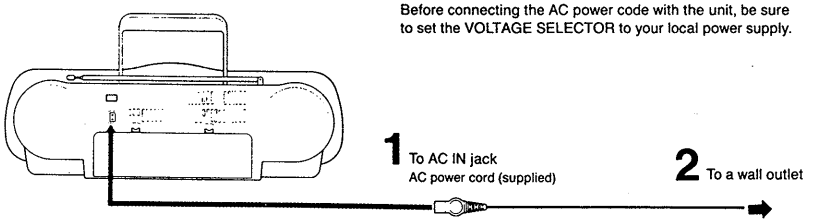
Note
- When you insert or replace batteries, remove the disc from the unit. The disc holder may open and the disc may fall out and be damaged.
- When you operate the unit on batteries, be sure to disconnect the AC power cord from the unit. The unit cannot be operated on the internal batteries when the AC power cord is connected to the unit.

Batteries



House Current

Before connecting the AC power code with the unit, be sure to set the VOLTAGE SELECTOR to your local power supply.



When to replace batteries
When the batteries become week, the following symptoms appear. Then replace all the batteries with new ones.
When you replace them, be sure to connect the AC power cord to the unit and to the wall outlet and turn the power on before you remove the batteries so that the memory for CD and radio may not be deleted.
- Batteries for the unit itself: The OPR/BATT indicator becomes faint or the power may turn off automatically.
- Batteries for the clock/timer/memory operation: the indication in the display window becomes faint or the unit will not function.

Notes on batteries
- Insert batteries with correct polarity.
- Do not use old batteries with new ones or different types of batteries together.
- The batteries cannot be charged.
- When the batteries will not be used for an extended period of time, remove them.

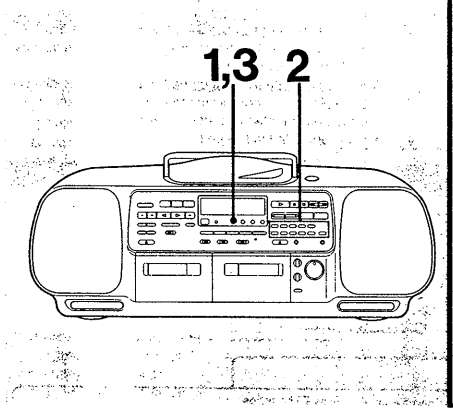
If battery leakage or corrosion occurs, clean the contaminated parts in the battery compartment with a soft cloth and replace the old batteries with new ones.

For critical recordings or disc playing
Operating the unit on house current is recommended.

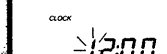
For the customers supplied with AC plug adaptor
Use it if the plug of the AC power cord does not match the outlet.

Setting the Clock

R6 (size AA) batteries for the clock/timer/memory should be inserted in the battery compartment.



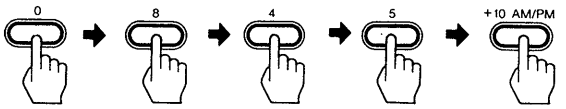
1 Keep pressing for about 3 seconds until the first digit flashes.

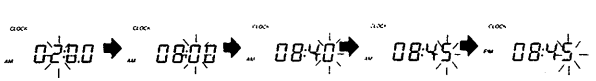


2 Press the number buttons to enter the hour and then the minute. (If the hour and/or minute has only one digit, be sure to press "0" first.)

Select AM or PM by +10 AM/PM.

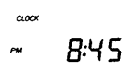
Example: To set to PM 8:45.





3 Press again.

The clock starts from 00 second.

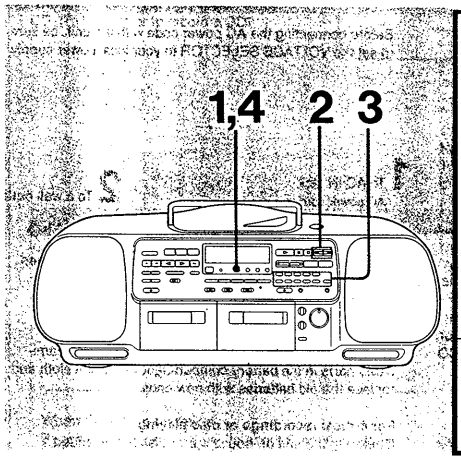


The clock employs the 12-hour system.
AM 12:00 = midnight
PM 12:00 = noon

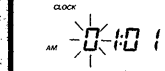
To set the clock exactly to the second
Use a radio or telephone time signal.

To Change One Digit

Example: To change AM 1:01 to AM 1:00.

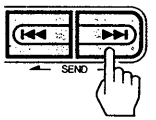


1 Press for about 3 seconds until the first digit flashes.



2 Press three times until the last digit flashes.

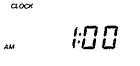
The flashing moves to the left by pressing ⏮.



3 Press the number button.

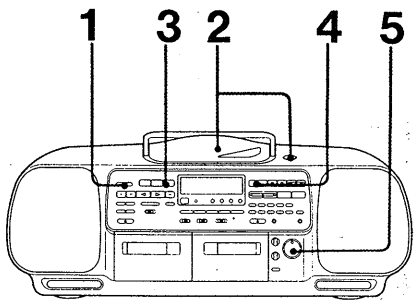
4 Press again.

The clock starts from 00 second.

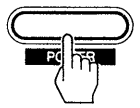


Playing Discs

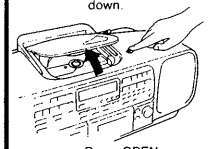
You can operate the unit with the supplied remote commander.
You can play an 8 cm (3-inch) CD without using an adaptor for it.



1 Press POWER.

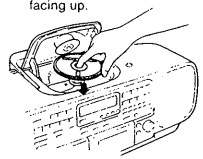


2 [1] Be sure the handle is down.

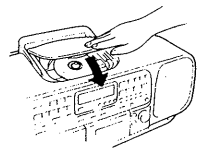


Press OPEN.

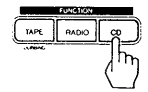
[2] With the labeled surface facing up.



[3] Close the holder.



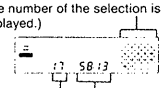
3 Press CD.



The disc starts to rotate and the indication of the total playing time appears.

Example: A disc with 17 selections and 58 minutes and 13 seconds of the total playing time.

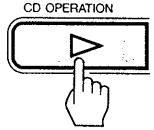
Music calendar
(The number of the selection is displayed.)



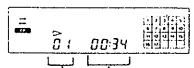
Total playing time
Total number of selections

4 Press.

CD OPERATION



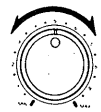
Play starts from the beginning of the disc.



Selection No. being played
Elapsed playing time

5 Adjust the volume.

Adjust MEGA BASS and TONE, or SPACE SOUND (CFD-500 only), if necessary.



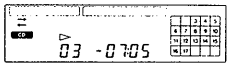
To stop playing the CD

	Press (Unit/remote commander)
pause for a moment	▯▯/▮▮
resume play after pause	▯▯/▮▮
stop play	□/■
remove the disc	□/■ → press OPEN*.

*Press OPEN after making sure that the disc has stopped.

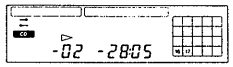
To Display Remaining Time

Press DISPLAY during play.
Press DISPLAY once and the remaining time of the selection being played is displayed.



7 minutes and 5 seconds are left until the 3rd selection finishes.

Press DISPLAY twice, and the remaining time of the disc and the remaining selection numbers are displayed.



2 selections and 28 minutes and 5 seconds are left until the disc finishes.

Press again for normal display.

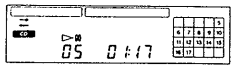
Note

During shuffle or repeat playing, the remaining time of the disc cannot be displayed.

Information Display

The numbers, which appear during pause or between selections, indicate the following:

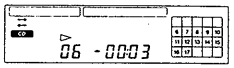
While in pause



The player is in pause at 1 minute and 17 seconds from the beginning of the 5th selection.

Between selections

The remaining time for the next selection is displayed.



3 seconds are left until the 6th selection starts.

Note

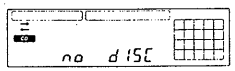
Since the CD system offers wide dynamic range, the peaks of high level inputs are recorded with high fidelity, and the noise level is very low. Do not turn up the volume while listening to a portion with very low inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.

When you have finished listening

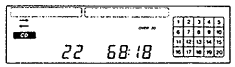
Press POWER.

Note

- If the disc is played near a TV or a radio, noise may occur on the TV screen or radio sound.
- If there is no disc in the disc holder, the following indication appears in the display window after several seconds.

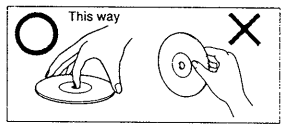


- Up to 20 selections are displayed in the music calendar.
- If the disc has more than 21 selections, "OVER 20" appears in the display window.

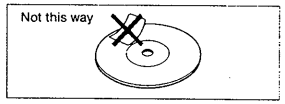


- The remaining time of the selection from the 21st selection appears as "__:__".
- Elapsed playing time is displayed during play.
- To display the total number of the selections and the total playing time, press DISPLAY in the stop mode.

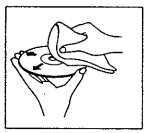
Notes on Compact Disc



Handle the disc by its edge, and to keep the disc clean, do not touch the surface.



Do not stick paper or tape or write anything on the surface.



Before playing, clean the disc with a CD cleaner (not supplied).
Wipe the disc from the center out.

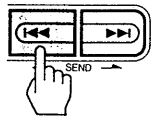
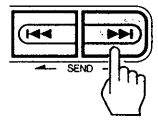
For maintenance of discs in detail, see page 48.

To Listen to the Desired Selections

To locate the beginning of a selection (AMS*)

Be sure the PROGRAM EDIT or SHUFFLE indication is not displayed in the display window. If either is displayed, press □.

Press |◀◀ or ▶▶| during play or pause.

To locate the beginning of the selection being played.	To locate the beginning of the next selection.
	

*AMS: Automatic Music Sensor.

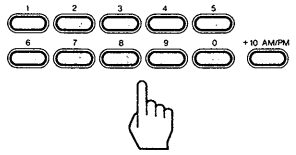
If you press |◀◀ during play
The beginning of the current selection is located if you press it once, then the beginning of the previous selection is located in sequence each time you press.

If you press ▶▶| during play
Each time you press, the beginning of the next selection is located. When you keep pressing it, the selections are skipped continuously.

In the pause mode
If you press |◀◀, the beginning of the selection in pause is located, and when you press ▶▶|, the beginning of the next selection is located and the disc pauses.

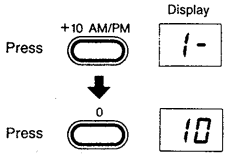
To select the desired selection directly

Using the number buttons, press the number of the desired selection.
Play starts immediately.

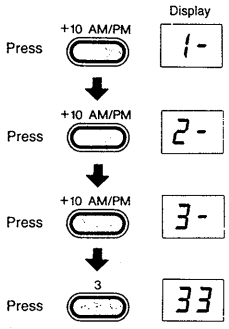


If a selection number is higher than 10, press +10 AM/PM first then the number buttons (0 – 9).

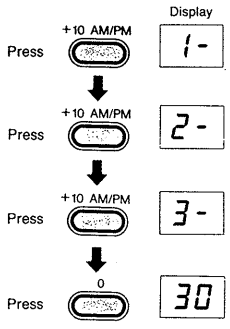
Example:
To play from the 10th selection.



To play from the 33rd selection.



To play from the 30th selection.



To Search for a Particular Point in a Selection (Search)

(You can do this only with the supplied remote commander.)

To review or to advance rapidly
Press |◀◀ or ▶▶| to review or to advance disc playing rapidly.

To review disc playing rapidly	To advance disc playing rapidly
INTRO SCAN	PGM CHECK

Release ◀◀/▶▶ at the desired point, located by monitoring the high-speed sound.

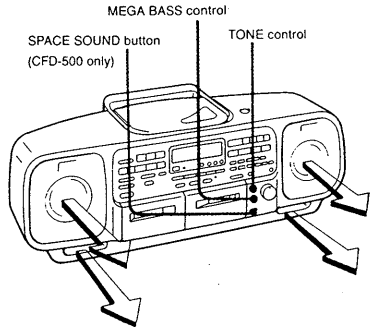
In the pause mode, you can search rapidly. However, since you cannot hear the sound, observe the time counter instead.

Note
You cannot search for a particular point in a selection by operating the unit. You must use the supplied remote commander.

Adjusting Sound

To Enjoy a Powerful Bass Sound

The "MEGA BASS" system produces a powerful bass through the super woofer added to a normal speaker system.
To increase the bass, turn the MEGA BASS control clockwise.



Note on setting the MEGA BASS control
The super woofer's output is so powerful that the sound may be cracked or distorted if you set the volume too high with MEGA BASS set at its maximum. If this happens, turn down VOLUME or MEGA BASS counterclockwise so that the best sound quality can be obtained.

To enjoy the Surround Effect

(CFD-500 only)

Press SPACE SOUND, and you can enjoy a rich and spacious effect added to the original sound. This effect is not applicable to monaural selections. The effect differs depending on the selection.

To Adjust the Tone of the Reproduced Sound

Rotate TONE clockwise or counterclockwise.
Turn TONE clockwise, to emphasize the bass sound.
Turn TONE counterclockwise, to emphasize the treble sound.

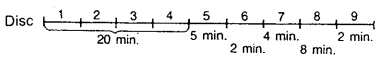
Automatic Editing on the CD for Recording by Specifying the Tape Length

The CD player automatically edits the selections on a disc according to the tape length. This is called automatic editing (AUTO EDIT).
The recording length is up to 99 minutes.
There are two ways of editing.

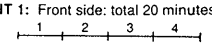
EDIT 1: The CD player selects the selections beginning from the first one on the disc, summing up the playing time. When the total playing time exceeds the specified tape length, the last selection is recorded on the reverse side of the tape.

EDIT 2: The CD player selects the selections beginning from the first one on the disc, summing up the playing time. When the total playing time exceeds the specified tape length, the last selection is eliminated. Then, the CD player looks for a selection whose length is within the remaining tape and substitutes if for the eliminated one.

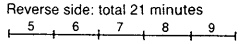
Example: To record on a 46 minute-tape (23 minutes for each side)



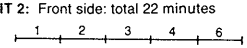
EDIT 1: Front side: total 20 minutes



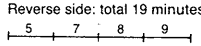
Reverse side: total 21 minutes



EDIT 2: Front side: total 22 minutes

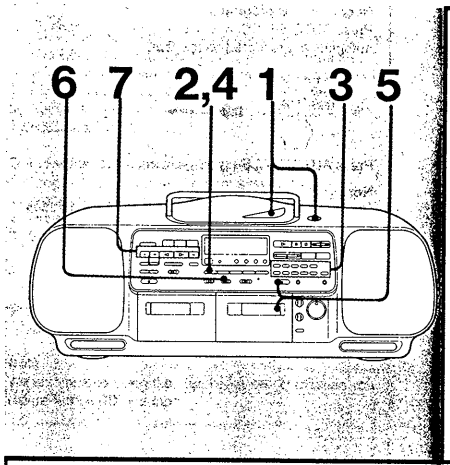


Reverse side: total 19 minutes



Notes
- Use a tape which is longer than the total playing time.
- Up to 20 selections can be edited.
- When EDIT is pressed, the selection order stored for program play (see page 18) will be erased.
- To record the selections which cannot be recorded on the specified tape, after the selection has been programmed for automatic editing, press SHUFFLE/PGM three times, and record them using the program play after the PROGRAM EDIT indication has appeared in the display window.
- When the disc holder is opened with FUNCTION set to CD, the selection order programmed for automatic editing will be erased.

Press EDIT. Each time it is pressed, the editing mode changes in sequence as indicated in the display window: EDIT 1 ➡ EDIT 2 ➡ normal recording.



1 Proceed with steps 1 through 3 in "Playing Discs". (See page 12.)

- Make sure the disc is not moving. During play the edit function does not work.
- Make sure the SHUFFLE or the PROGRAM EDIT indication has disappeared from the display window; if it has not, press ☐ once or twice.

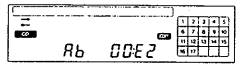
2 Select EDIT 1 or EDIT 2.

EDIT 1:

Press once to display EDIT.
E 1

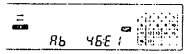
EDIT 2:

Press twice to display EDIT.
E2

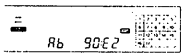


3 Enter the total tape length by pressing the number buttons.

Example: 46-minute tape
Press the number buttons 4 and 6.



Example: 90-minute tape
Press the number buttons 9 and 0.



Note
The buttons for the automatic editing are different from those for the direct selection (see page 14). The +10 button is not used for the automatic editing.

4 Press.

When the toal playing time is shorter than the tape length, the PROGRAM EDIT indication will be displayed.

Press

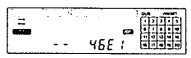
Selection number to be edited on both sides of the tape.

Programmed step number (As the pause, which occurs when the tape transport direction changes, is counted as 1 step, one is added.)

The selections have been programmed.

Proceed to Step 5.

When the total playing time is longer than the tape (in the case of a 45-minute tape)



The indication above appears in the display window. Replace the tape with longer one, and repeat from Step 3.

To check the programmed selections

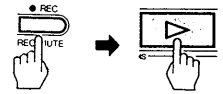
Press the ▶▶/PGM CHECK button on the remote commander. You can check the selections from the beginning one by one.
Press the ▶▶/PGM CHECK button on the remote commander again, and the time summed up on each side will be displayed.

5 Insert a blank cassette into deck B.

Use TYPE I (normal), TYPE II (CrO_2) or TYPE IV (metal) tapes.

6 Set to NORMAL. (CFD-500 only)

7



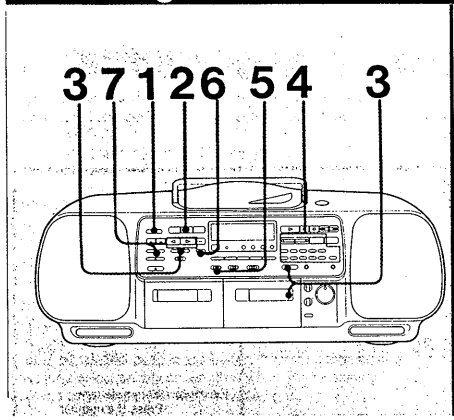
While pressing

The CD player will start automatically. Record the tape from the front side.

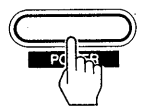
When recording on the front side is finished
The CD player is set to pause (▯▯), and the cassette deck starts to erase the remaining tape on the front side at high speed, and then the tape transport direction changes to reverse. The CD player automatically starts to play and the cassette deck starts to record on the reverse side.

When all the selections are recorded
- Both CD player and the cassette deck are set in the stop mode.
- The DIR MODE indication changes to ⇄ automatically. When the recording has been finished, the indication returns to the mode before you set the program.
- The program will not be erased even if you have turned off the power as long as the batteries for the clock/timer/memory operation are inserted, but the program will be erased if you turn on the power with a different disc inserted.
- Set CD DUBBIN SPEED to NORMAL. When it is set to HIGH, the edit function will not work. (CFD-500 only)

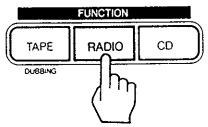
Recording Radio Sound (with deck B)



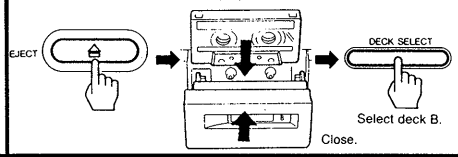
1 Press POWER.



2 Press.

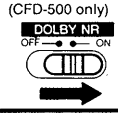


3 Use TYPE I (normal), TYPE II (CrO_2) or TYPE IV (metal) tapes.



4 Select the desired band, and tune in the station desired (see page 22).

5 Set to ON when you record using the DOLBY B Noise Reduction system. (CFD-500 only)



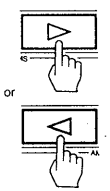
6 Select the desired tape transport direction.

	Displayed indication
To record on both sides of a cassette	⇄ or ⇄
To record on one side of a cassette	⇄

Both-sides recording should be started from the front side.

7

While pressing



To record from the front side.

To record from the reverse side.

To stop recording
Press ■.

After use
Press POWER.

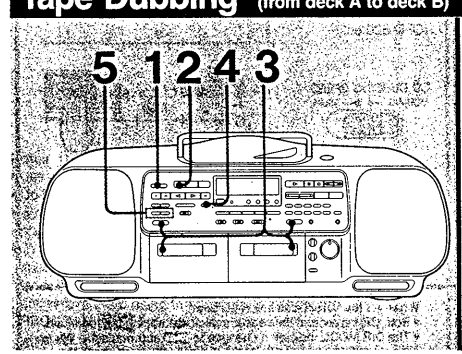
The sound to be recorded will not be affected by the setting of VOLUME, MEGA BASS, SPACE SOUND (CFD-500 only) or TONE.

To reduce noise while recording AM
If a whistling noise is heard, set ISS*/FM MODE to 1, 2 or 3, depending on which best reduces the noise. Normally set it to 2.

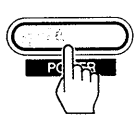
*ISS: Interference Suppress Switch.

Note
- If you use the supplied remote commander near the unit while listening to an AM program, noise might be heard.
- For recording, operating the unit on house current is recommended.
- When the DIR MODE indication is ⇄, the deck stops as soon as the reverse side of the tape is finished.

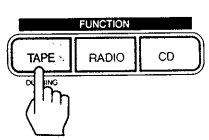
Tape Dubbing (from deck A to deck B)



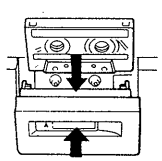
1 Press POWER.



2 Press.

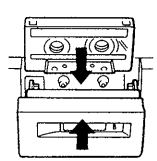


3 Insert a recorded cassette into deck A.



Front side is to be played back.

Insert a blank cassette into deck B.
Use TYPE I (normal), TYPE II (CrO_2) or TYPE IV (metal) tape.



Front side is to be recorded.

4 Select a tape transport direction with the DIR MODE button.

	Displayed indication
To record on both sides of a cassette	⇄ or ⇄
To record on one side of a cassette	⇄

5

For normal dubbing:

For high-speed dubbing

Playback of deck A and recording of deck B start.

To stop dubbing
Press ■.
Deck A and deck B stop simultaneously.

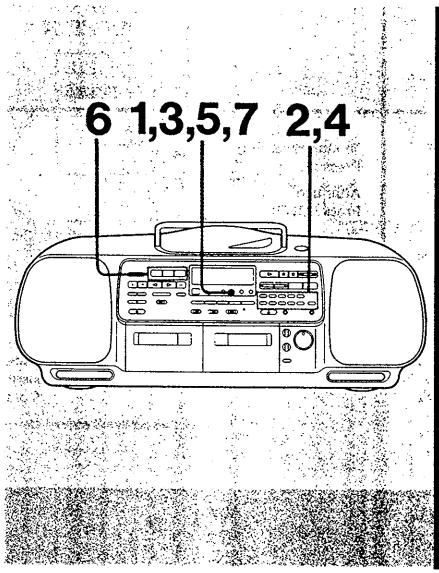
During dubbing, if the DOLBY NR switch is set to ON (CFD-500 only)
The DOLBY B Noise Reduction system operates for the sound played back, but not on the sound being recorded.

The cassette recorded using the DOLBY B Noise Reduction system can be recorded on the blank cassette with the DOLBY B Noise Reduction effect.

Note
- During dubbing, do not press the FUNCTION selector. When the FUNCTION selector is set to a position other than TAPE, the dubbing stops.
- During dubbing, the TAPE OPERATION buttons except the ■ button do not function.
- For dubbing, using the unit with the supplied AC power cord is recommended.
- When the DIR MODE indication is ⇄, the deck stops as soon as the reverse side of the tape is finished.

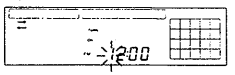
Using the Built-in Timer (Four R6 (Size AA) batteries should be inserted.)

To Set the Timer-on Time and the Function Selector



1 Press.

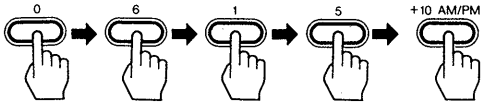
The TURN ON indication lights.

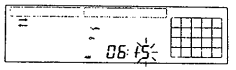


Flashes

2 Press the number buttons to program the starting time.

Example: To set to 6:15 AM



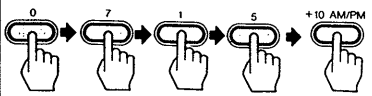


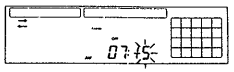
3 Press.

The TURN OFF indication lights.

4 Press the number buttons to program the ending time.

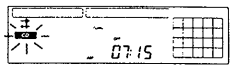
Example: To set to 7:15 AM



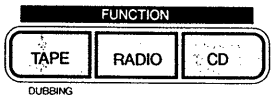


5 Press.

The function indication flashes.



6 Press the desired FUNCTION button.



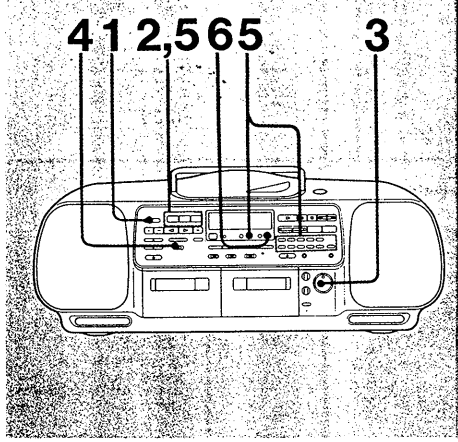
7 Press.

The starting time, the ending time and the desired function have been stored.

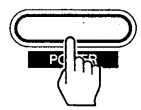
To Listen to the Sound at the Desired Time

You can wake up to the desired sound if you preset the time.
Make sure the current time of the unit is correct. If it is not, see page 10 to correct it.

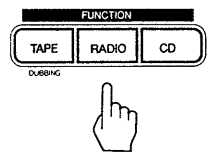
Make sure that the STANDBY indication is not displayed in the display window.



1 **Press POWER.**



2 **Select the desired sound source.**

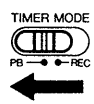


	Displayed indication	Preparation
To listen to a disc*	CD	Insert a disc into the disc holder.
To listen to a radio	RADIO	Tune in the desired station.
To listen to a tape	TAPE	Insert a tape into the desired deck.

*You can listen to a disc in the desired playing mode other than the normal playing mode.

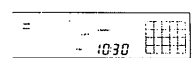
3 **Adjust the volume.**
If necessary, adjust MEGA BASS, SPACE SOUND (CFD-500 only) or TONE. (See page 15.)

4 **Set to PB.**



5 **Set the timer-on time and FUNCTION.**
(See page 38.)

6 **Press.**

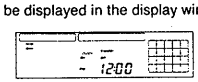


The STANDBY indication appears. If it does not, press STANDBY again.

Note
If the starting time and the ending time are preset for the same time, the timer will not function.

7 **The power is turned off automatically.**

At the preset starting time, the power will be turned on and the sound will come on automatically. The ON and OFF indication will be displayed in the display window.



When tapes are inserted both in deck A and deck B, deck A will be played back.
At the preset ending time, the power will be turned off and the ON and OFF indication will disappear.

To stop the play in the middle
Press POWER.

To release the preset time
Press STANDBY. The STANDBY indication disappears from the display window.

To listen to the desired sound source at the same time on the next day
It is not necessary to set the timer and FUNCTION again since the preset time is retained until you reset the timer. When the STANDBY indication is not displayed in the display window, press STANDBY again.

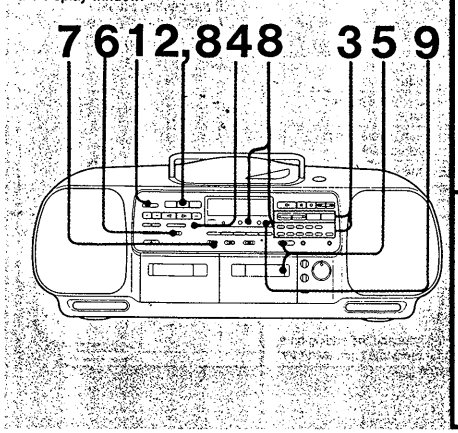
To listen to a disc starting with the desired selection by using the build-in timer
1 Press POWER.
2 Set the timer-on time and press CD of FUNCTION.
3 Make sure the disc is in the pause mode, and display the desired selection number by pressing |◀◀/▶▶|.
4 Proceed with the steps 3 through 7 in "To Listen to the Sound at the Desired Time".

At the preset time, the desired selection is played first. You can set Repeat 1 play, Repeat All play, Shuffle play or Program play.

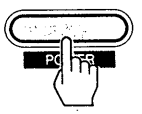
To Record Radio Programs at the Desired Time (with deck B)

Make sure the current time of the unit is correct.
If it is not, see page 10 to correct the time.

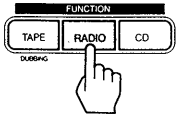
Make sure the STANDBY indication is not displayed in the display window.



1 Press POWER.



2 Press.



3

Tune in the desired station.
(See page 22.)

4 Select the tape transport direction with DIR MODE.

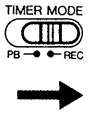
	Displayed indication
To record on both sides of a cassette	⇄ or ⇆
To record on one side of a cassette	⇄

*Both-sides recording should be started from the front side.

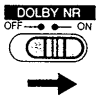
5 Insert a cassette into deck B.

Use TYPE I (normal), TYPE II (CrO_2) or TYPE IV (metal) tapes.

6 Set to REC.



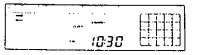
7 Set to ON when you record using the DOLBY B Noise Reduction system. (CFD-500 only)



8 Set the timer-on time and FUNCTION to RADIO.

(See page 38.)

9



The STANDBY indication appears.

10 The power is turned off automatically.

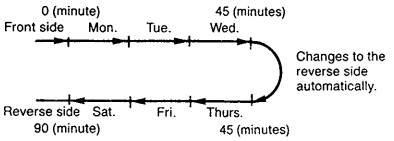
At the preset starting time, the power is turned on and recording starts. The ON and OFF indications appear in the display window.
At the preset ending time, the power is turned off and the ON and OFF indication disappear.

To stop in the middle
Press POWER.

To release the preset time
Press STANDBY. The STANDBY indication disappears from the display window.

After recording, be sure to set TIMER MODE to PB and take out a cassette.

To record the same program on the next day
It is not necessary to repeat these steps. As long as the STANDBY indication remains in the display window, the same program will be recorded at the same time on the next day.
When the DIR MODE indication is ⇄ or ⇆, a program can be recorded from the front side to the reverse side of a tape continuously everyday.
Example: To record a 15-minute program for one week.

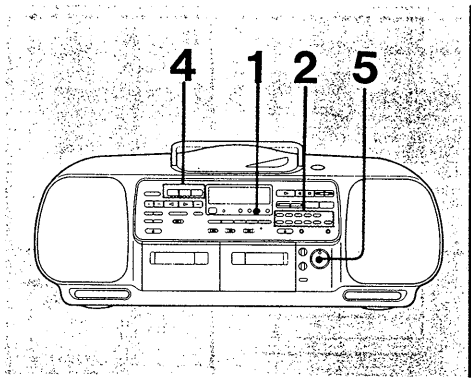


When the reverse side is finished, the preset recording stops.

Note
- For recording, using the supplied AC power cord is recommended.
- When the DIR MODE indication is ⇆, the deck stops as soon as the reverse side of the tape is finished.

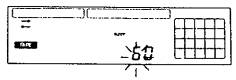
To Fall Asleep with the Desired Sound—Sleep Function

When the preset time (10 to 90 minutes; in 10 minutes intervals) has passed, the power is turned off automatically.
You can fall asleep listening to the desired program.



1 **Press.**

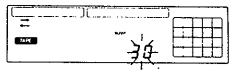
If the power is off, it will be turned on automatically.



Flashes

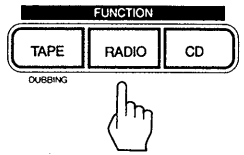
2 **Set the time duration with the number buttons within 4 seconds.**

Example: 30 minutes



3 **About 4 seconds later, the indication before setting the number buttons appears.**
(The sleep function starts.)

4 **Select the desired sound source.**



5 **Adjust the volume.**

The sleep time will be retained until it is reset.

To stop the sleep function in the middle
Press SLEEP or POWER.

To reset the sleep time
Turn off the power, and repeat the steps from 1.

To fall asleep with the desired program and to be awakened with other program

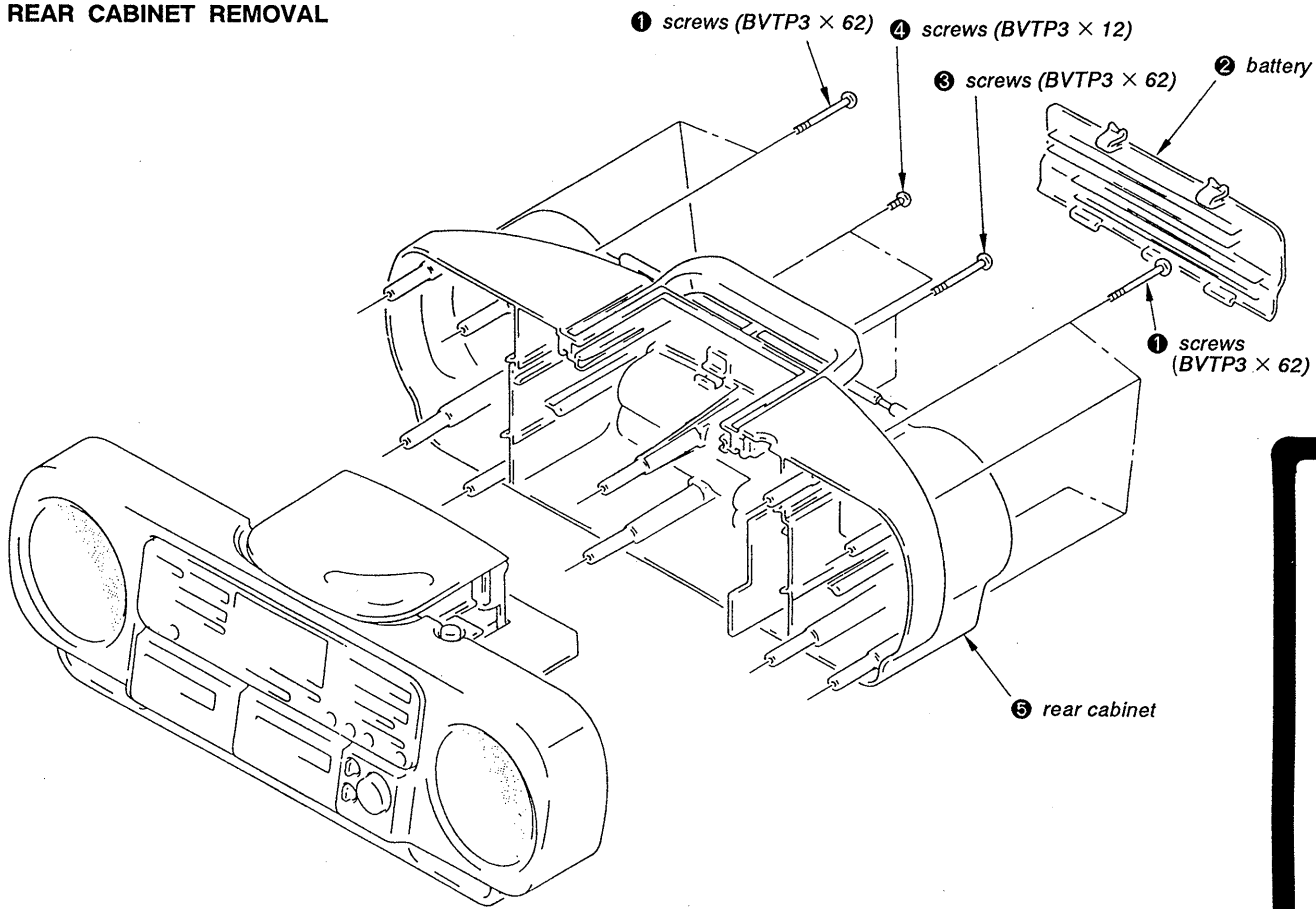
1 Preset the desired program to wake up to.
1 Press POWER.
2 Preset the desired starting time (to wake up), desired ending time and FUNCTION.
3 Set TIMER MODE to PB.
4 Press STANDBY.

2 Operate the sleep function.
1 Press SLEEP to set the desired duration of time during which you want to listen to the program.
2 Select the desired sound source.
3 Adjust the volume with VOLUME. If necessary, adjust MEGA BASS, SPACE SOUND (CFD-500 only) or TONE.

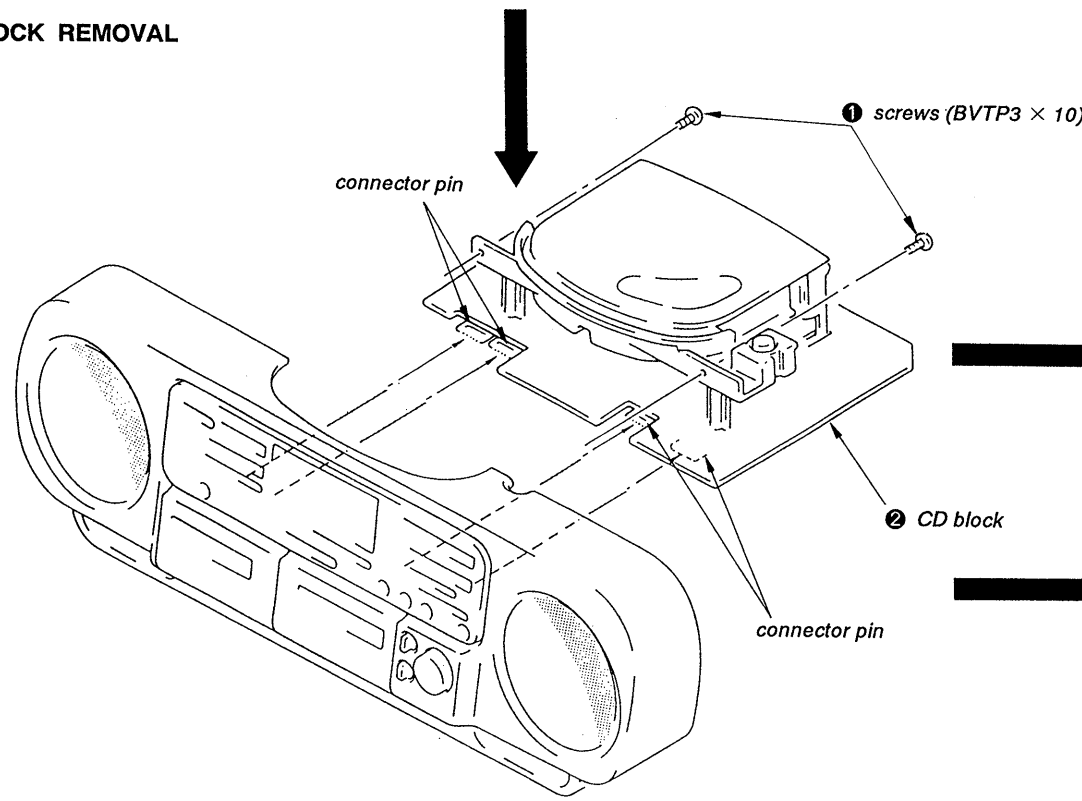
SECTION 3
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

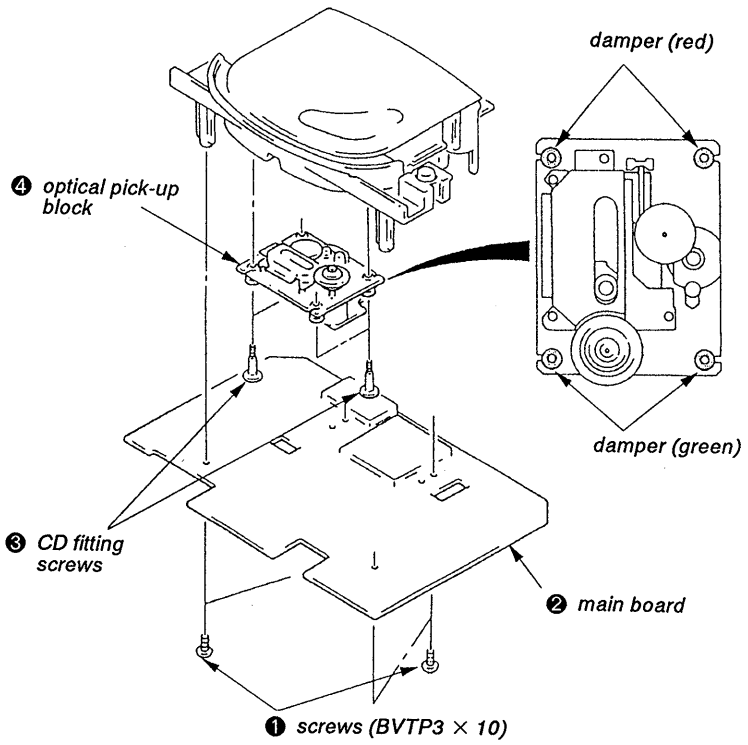
REAR CABINET REMOVAL



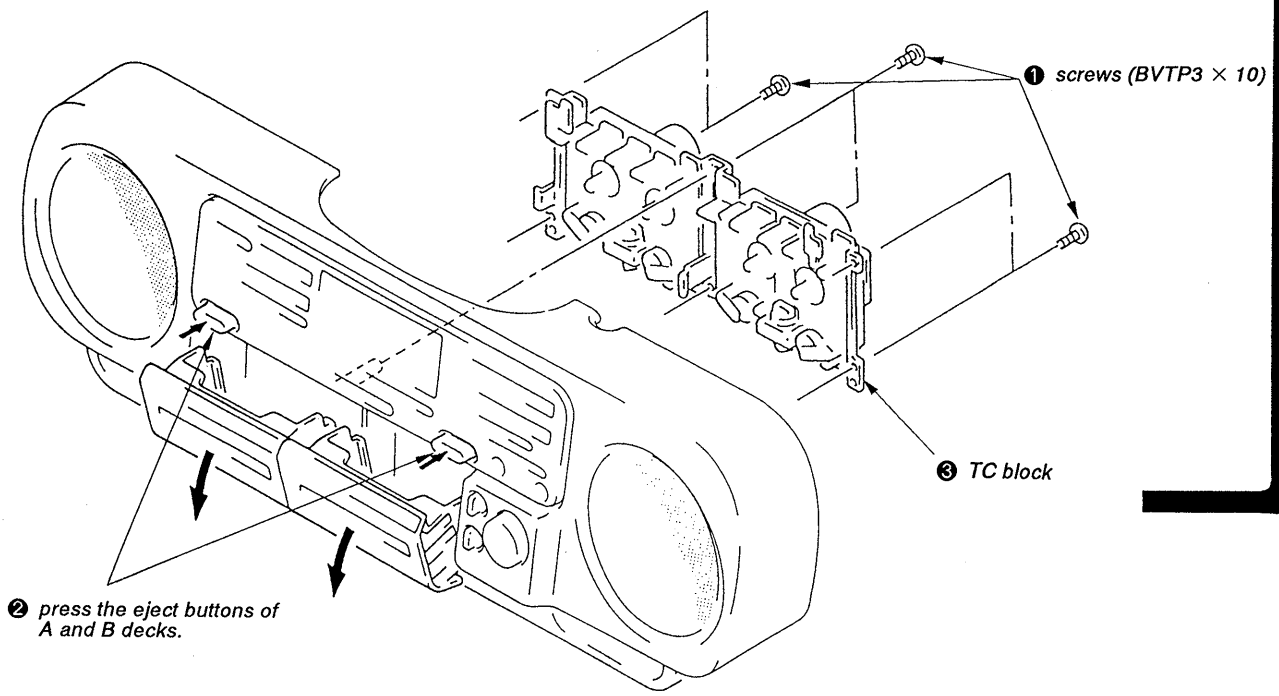
CD BLOCK REMOVAL



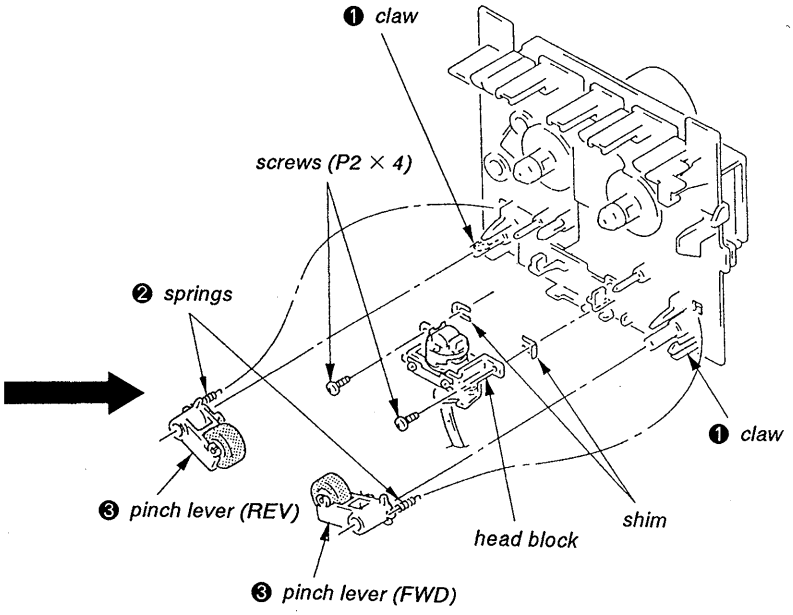
OPTICAL PICK-UP BLOCK REMOVAL



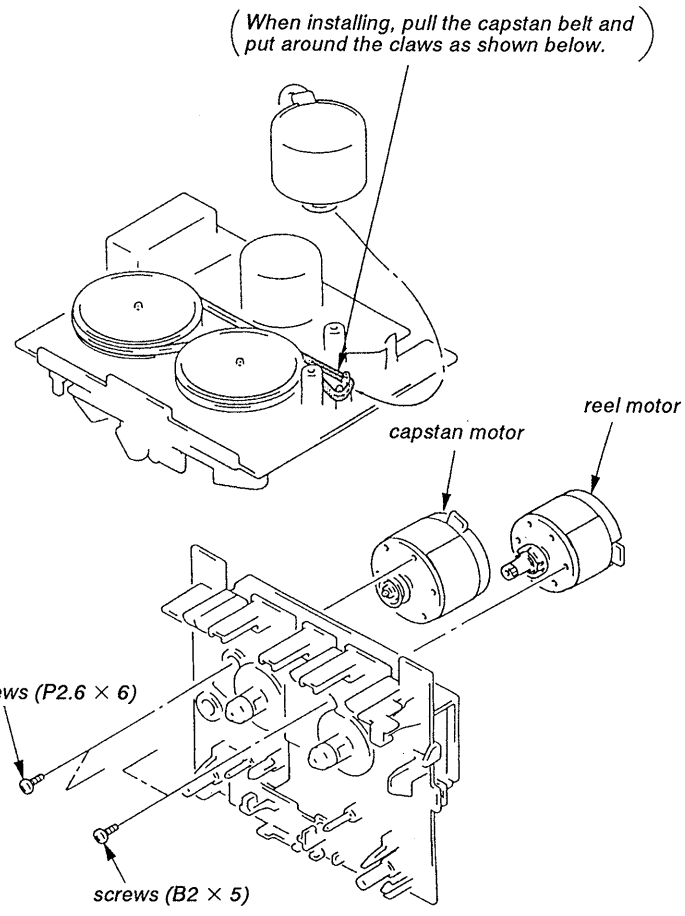
TC BLOCK REMOVAL



HEAD BLOCK AND PINCH LEVER REMOVAL



CAPSTAN MOTOR AND REEL MOTOR REMOVAL

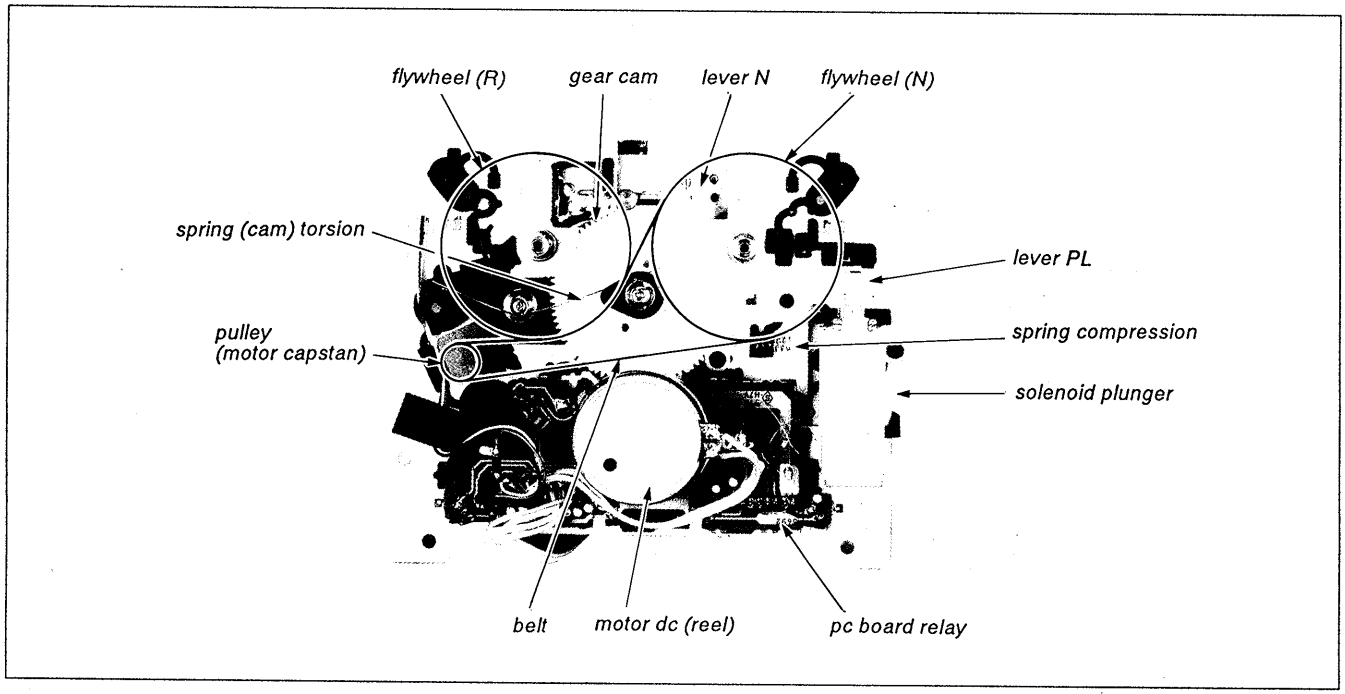

When installing, pull the capstan belt and put around the claws as shown below.
reel motor
capstan motor
screws (P2.6 × 6)
screws (B2 × 5)

SECTION 4
MECHANISM OPERATION

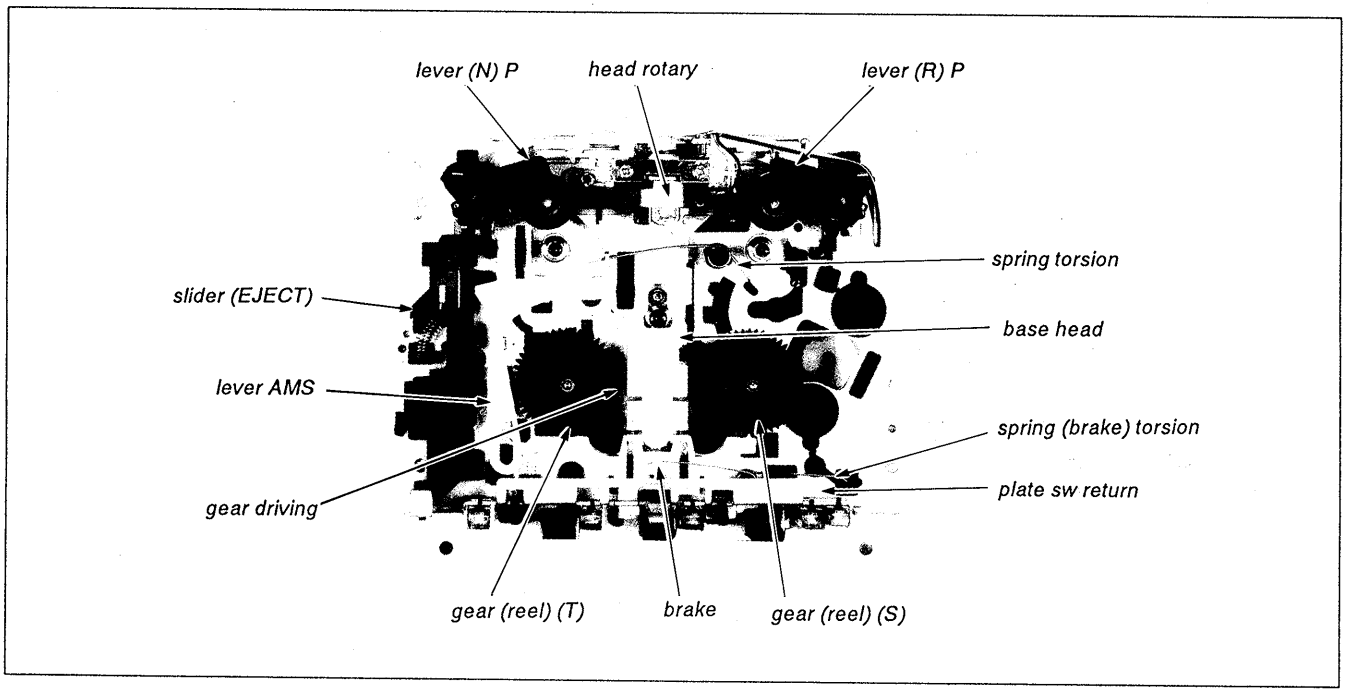
MECHANISM OPERATION

Modes are changed by that "Solenoid plunger" triggers "gear cam" to rotate in synchronizing with flywheel (N).
Main mechanical part names are shown in the followings precedently to mechanism operation.

[Motor]



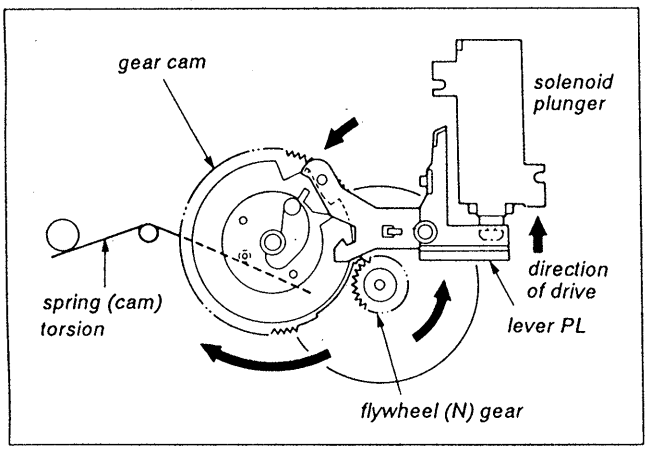
[Cassette]



Operations of the modes are as follows:

1. Operation of the cam gear

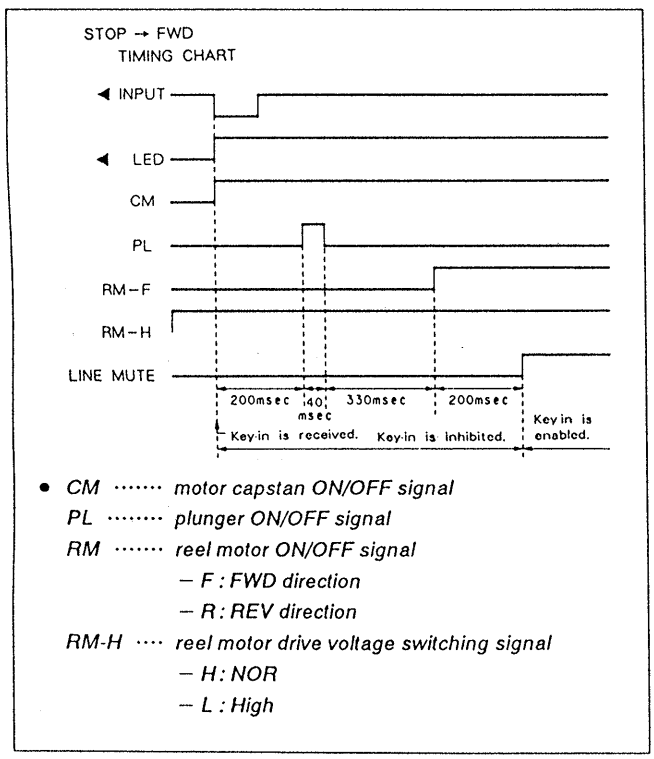
Perspective viewed from cassette



Operations are performed as follows;

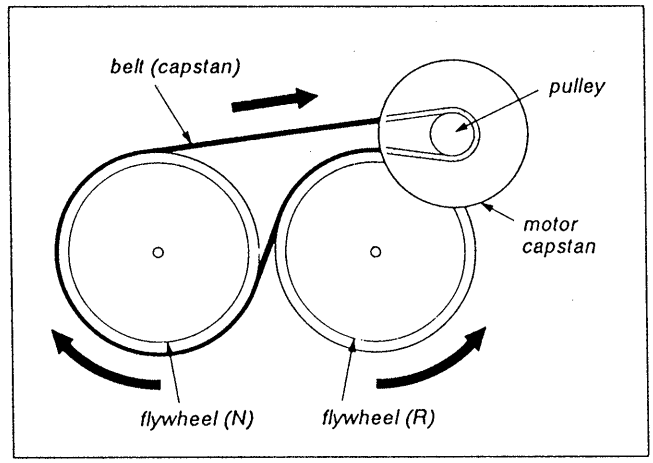
1. Power is supplied to "solenoid plunger".
2. "Lever PL" moves in the direction of arrrow.
3. "Gear cam" is turned by "spring (cam) torsion".
4. "Gear cam" is aligned with "flywheel (N) gear" so that "gear cam" is turned.
   (Approx. 0.5 seconds/1 turn)

2. FWD mode



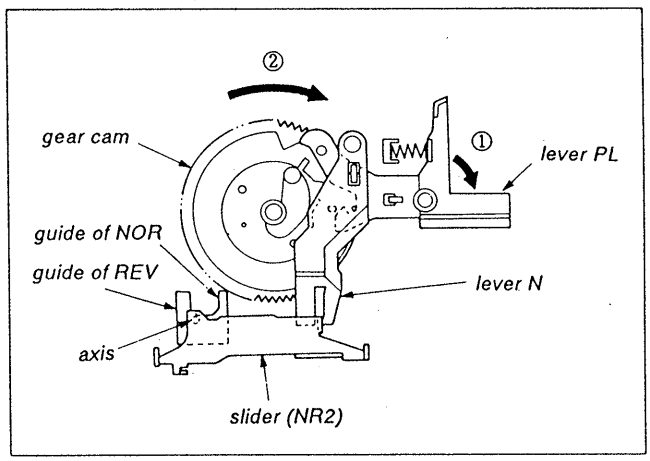
- *CM ····· motor capstan ON/OFF signal*
  PL ····· plunger ON/OFF signal
  RM ····· reel motor ON/OFF signal
  – F : FWD direction
  – R : REV direction
  RM-H ···· reel motor drive voltage switching signal
  – H : NOR
  – L : High

(1) Power is supplied to "motor capstan" and "flywheel" is turned by "belt (capstan)".



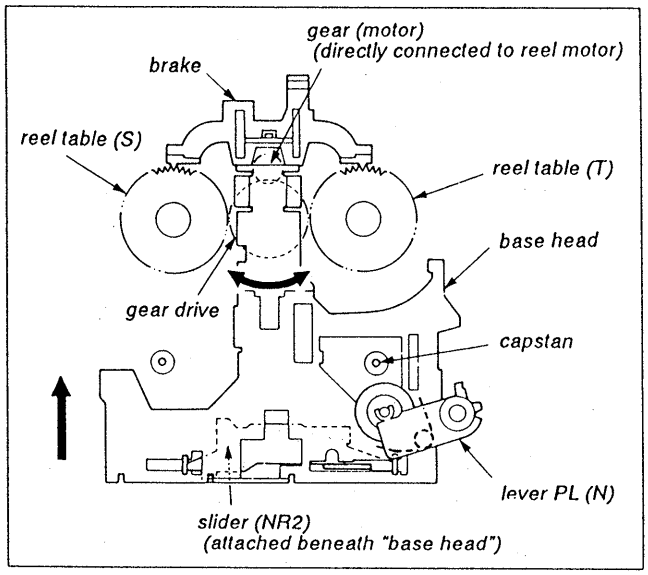
(2) Power is supplied to "selenoid plunger", "gear cam" is turned, a head is switched to NOR mode, and a head base is moved forward.

Perspective viewed from cassette



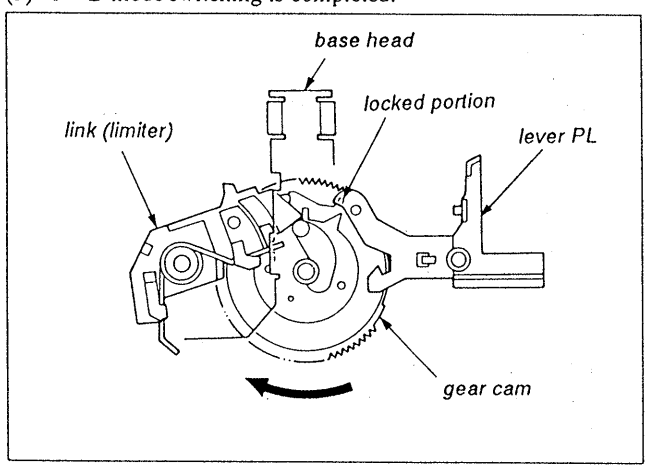
"Lever N" is turnd counterclockwise by "gear cam" and is locked at "level PL".
Rotation (counterclockwise) of "lever N" is synchronized with sliding of "slider (NR2)". When "slider (NR2)" is slid rightward, mode of a head is switched from REV to NOR. Simultaneously "lever PL" is pressed to a capstan.

(3) "Base head" is moved foward and the break is detached from the reel table. "Motor dc (reel)" is driven counterclockwise and the reel table (T) is turned by "gear driveng". "Lever PL" is pressed to the capstan.

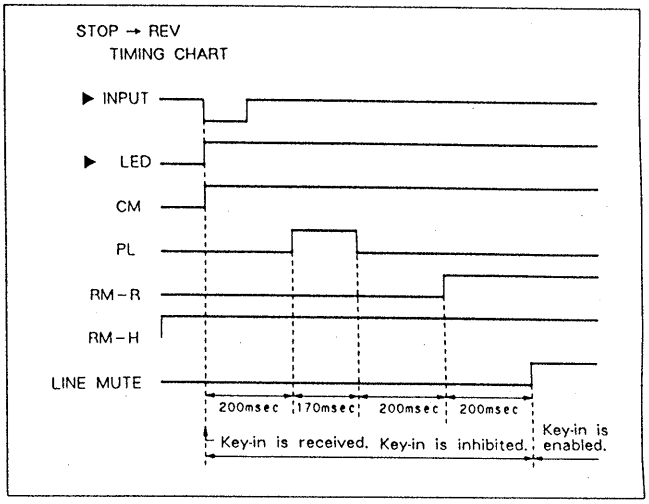


(4) "Base head" is moved forward by "spring torsion" of link (limiter) in synchronizing with rotating of "gear cam". "Gear came" is turned and is locked by "lever PL".

(5) FWD mode switching is completed.



3. REV mode

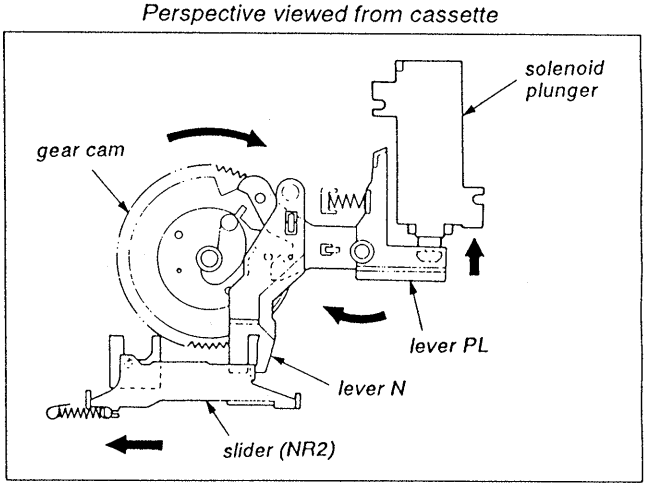


Differences from FWD mode

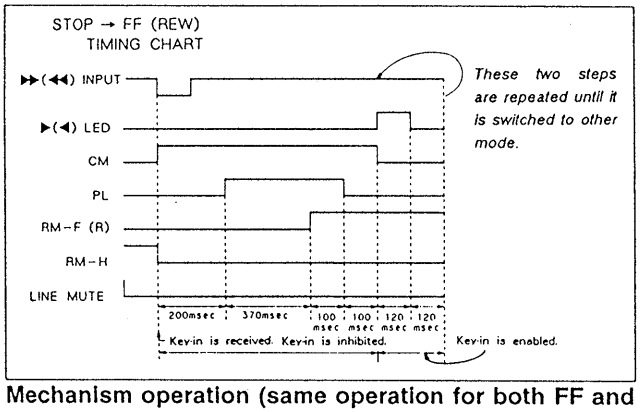
Suction time of "solenoid plunger" is long, "lever N" is not locked by "lever PL", and a head is set to REV mode. The slider (NR2) is set to REV mode and "lever PL (R)" is pressed to a capstan. "Lever N" is turned by "gear cam". However, "lever PL" is not locked and is set back to previous position because "lever PL" is sucked by "solenoid plunger"

"Motor reel" is driven clockwise in REV mode.

Perspective viewed from cassette



4. FF (REW) mode



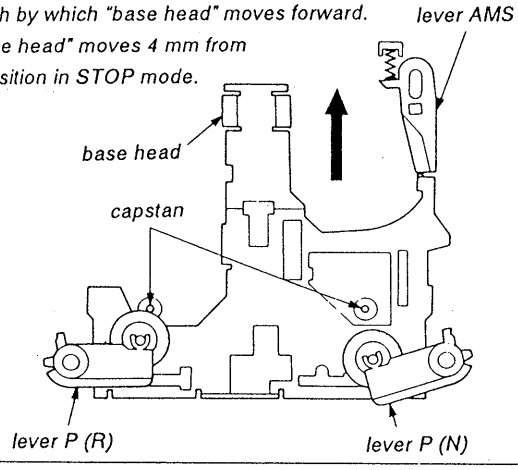
Mechanism operation (same operation for both FF and REW modes)

The head base is locked at a set position by the AMS lever synchronized with "solenoid plunger".

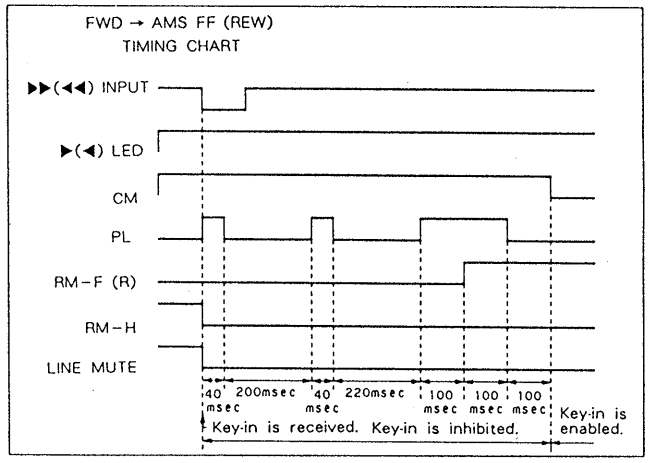
"Motor capstan" is turned off after "base head" is locked.

Voltage of "motor reel" in FF or REW mode is 6 V.

- *Direction of head is REV.*
- *Direction of turning of "motor reel".*
  FF : Counterclockwise
  REW : Clockwise
- *Length by which "base head" moves forward.*
  "Base head" moves 4 mm from a position in STOP mode.



5. FWD AMS mode



Mechanism operation

It is changed from FWD mode to STOP mode, "lever AMS" is stopped in midway of that "base head" is moved forward as machnism operation of FWD mode, and it is set to FWD, AMS, and FF/REW modes. A position of "Base head" is the same as in FF/REW mode (advanced by 4 mm than STOP mode) .

Difference from FF/REW mode is a rurning direction of " motor reel".

6. REV AMS (REW/FF) mode

Timing chart

STOP → REV → AMS•REW/FF

- All the signals in REV AMS mode is the same as those of REW mode except that a LED blinks or liths on.

Mechanism operation

It is changed from REV mode to STOP mode, "lever AMS" is stopped in midway of that "base head" is moved forward as mechanism operation of REV mode, and it is set to REV, AMS, and REW/FF modes.

A position of "Base head" is the same as in FF/REW mode (advanced by 4 mm than STOP mode).

Difference from FF/REW mode is a rurning direction of " motor reel".

SECTION 5
ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENTS

TAPE RECORDER SECTION

PRECAUTION

1. Clean the following parts with a denatured-alchohol-moistened swab:
   record/playback/erase head pinch rollers
   rubber belts capstans
   idlers
2. Demagnetize the record/playback/erase head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed in the order given in this service manual.

Torque Measurement

DECK A, B:

Mode	Torque Meter	Meter reading
FWD	CQ-102C	22.5 – 55 g•cm (0.31 – 0.69 oz•inch)
FWD back tension		1.5 – 5 g•cm (0.02 to 0.06 oz•inch)
REV	CQ-102RC	22.5 – 50 g•cm (0.31 – 0.69 oz•inch)
REV back tension		1.5 – 5 g•cm (0.02 to 0.06 oz•inch)
FF	CQ-201B	140 – 180 g•cm (1.94 – 2.49 oz•inch)

Tape Tension:

DECK A, B

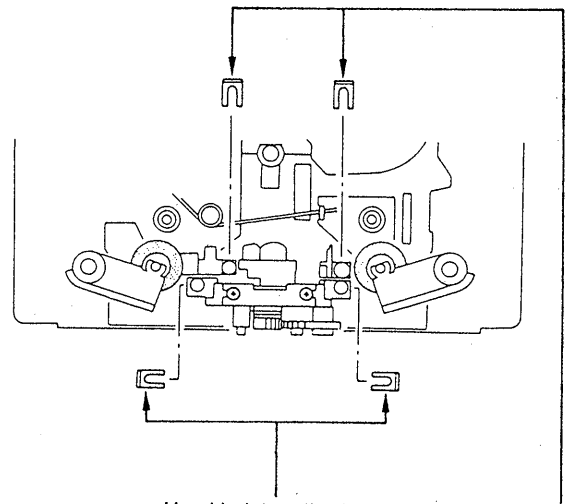
Mode	Tension Meter	Meter reading
FWD	CQ-403A	more than 100g (more than 1.38 oz•inch)
REV (Deck B)	CQ-403R	

Head Height Adjustment DECK B

Adjustment Procedure:

1. Insert a mirror cassette CQ-009C.
2. Make the set to FWD playback mode.
3. Loosen the FWD tape guide fixing screw and adjust with inserting the adjusting shim to eliminate tape curl and tape twist in the portions of tape guide and head.
4. Make the set to REV tape guide fixing screw and adjust with inserting the adjusting shim to eliminate tape curl and tape twist in the portions of tape guide and head.
5. Loosen the REV tape guide fixing screw and adjust with inserting the adjusting shim to eliminate tape curl and tape twist in the portions of tape guide and head.
6. After adjsutment, apply suitable locking compound to the fixing screws.

Adjustment Location:



Head height adjusting shim

Part No.	t
3-336-274-01	0.1
3-336-274-11	0.2
3-336-274-21	0.3

Tape guide height adjusting shim

Part No.	t
4-932-603-01	0.1
4-932-603-11	0.2

5-2. ELECTORICAL ADJUSTMENTS

TAPE RECORDER SECTION

PRECAUTION

1. Adjustments should be performed in the order given.
   Generally playback circuit adjusments should be completed before performing recording circuit adjustments.
2. Adjustments should be performed for both L-ch and R-ch.
   Switches and controls should be set as follows unless otherwise specified.

- **Positions of switches and control knobs**

FUNCTION ····· TAPE
ISS ····· 2
DIRECTION MODE ····· ⇄
Volume ····· standard output level position
ROTARY EQUALIZER ····· center LEVEL

- **Standard input level**

Input Pin	MIX MIC	MIX AMP IN
Signal source impedance	300 Ω	600 Ω
Input signal level	2.5 mV (− 50 dB)	0.02 V (− 31 dB)
Frequency	1 kHz	1 kHz

- **Standard output level**

Output Pin	SP OUT (L. R)	PHONES	LINE OUT
Signal source impedance	6Ω	32Ω	no-load
Output signal level	0.775 V (0 dB)	0.09 V (− 18.5 dB)	0.02 V (− 31 dB)

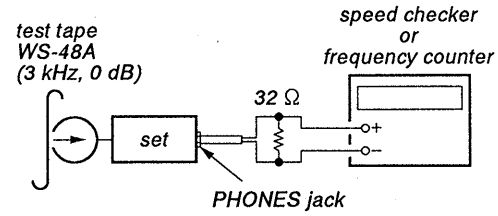
0 dB=0.775 V

- **Test tape**

Test Tape	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape speed adjustment
P-4-A100	10 kHz, − 10 dB	Head azimuth and phase adjustment

Tape Speed Adjustment DECK A DECK B

Procedure:
Mode: FWD playback



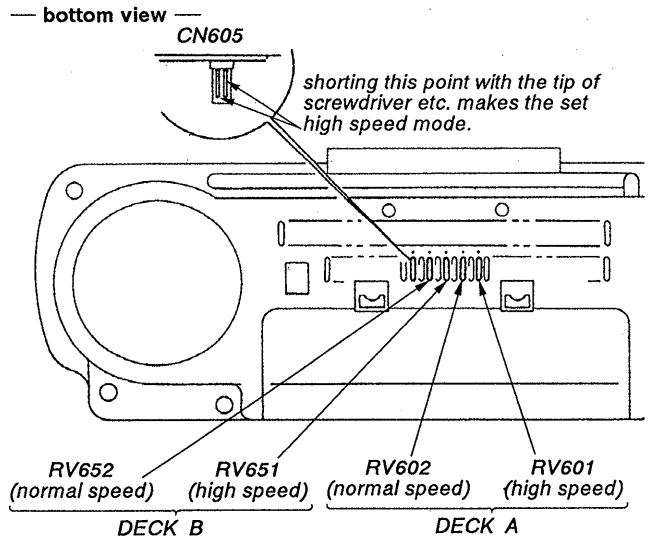
Perform high speed adjsutment before normal speed adjustment.
Playback the test tape WS-48A and adjust to meet the specifications below.

Adjustment Value:

Speed	deck	Adjust-ment part	test pin CN605	speed checker heading	frequency counter reading
high	A	RV601	short	− 1.17 to − 0.83%	5,940 ± 10 Hz
	B	RV651			
normal	A	RV602	open	− 1.17 to − 0.83%	2,970 ± 5 Hz
	B	RV652			

Frequency difference between FWD and REV should be within 1%

Adjustment Location: MAIN board

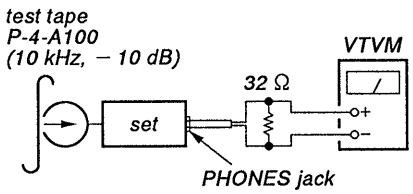

— bottom view —
CN605
shorting this point with the tip of screwdriver etc. makes the set high speed mode.
RV652 (normal speed)
RV651 (high speed)
RV602 (normal speed)
RV601 (high speed)
DECK B
DECK A

Record/Playback Head Azimuth Adjustment

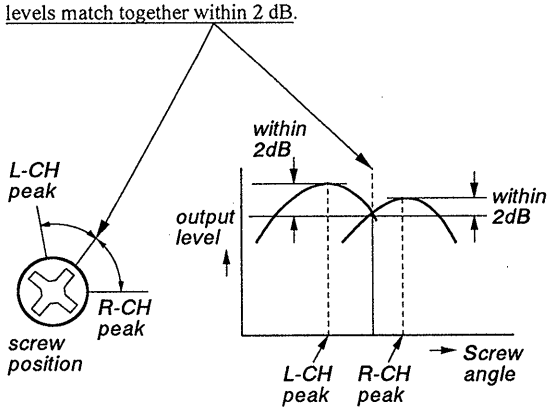
DECK A **DECK B**

Procedure:

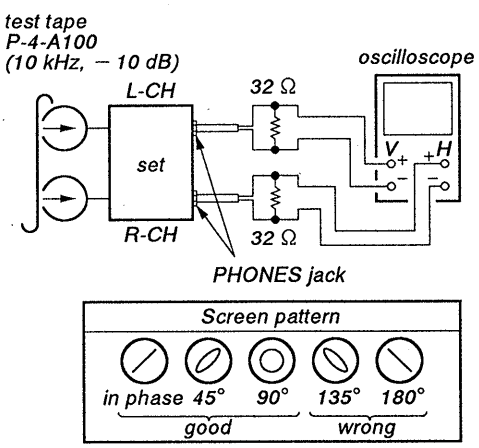
1. Mode: FWD/REV playback (DECK B)
   FWD playback (DECK A)



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2 dB.

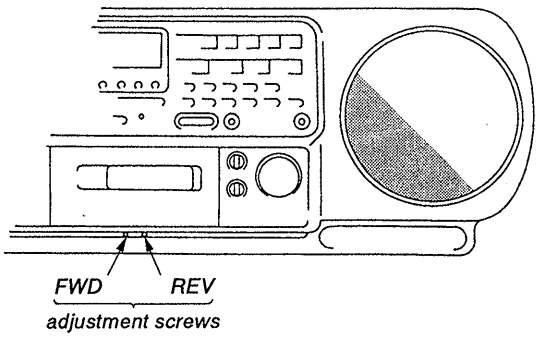


3. Phase Check
   Mode: FWD/REV playback (DECK B)
   FWD playback (DECK A)



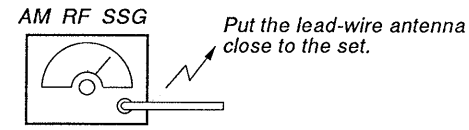
4. Set in the REV mode and repeat the step 1 to 3.
5. After the adjustment, lock the screws with locking compound.

Adjustment Location:

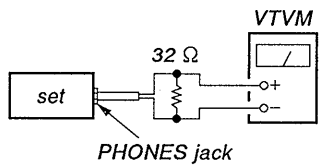


TUNER SECTION

[AM]
BAND switch: AM



30% amplitude modulation by 400 Hz signal
Output level: as low as possible



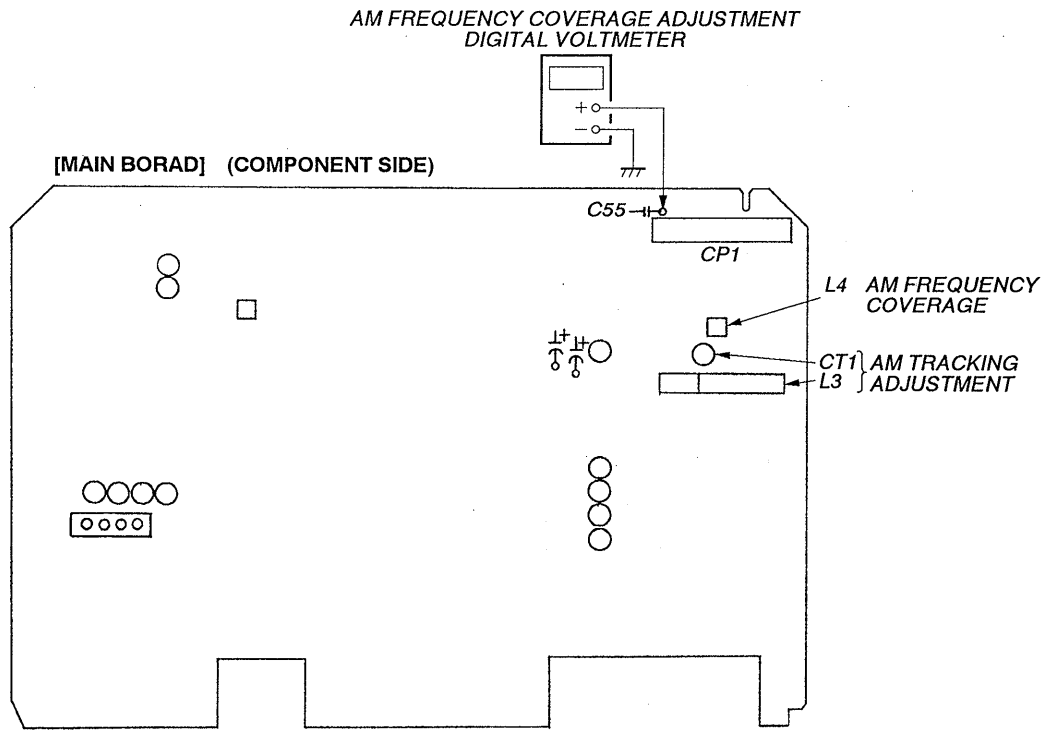
- **Positions of switches and control knobs**
  FUNCTION ..... RADIO
  ISS 2
  VOLUME ..... standard output level position
  TONE VOL ..... mechanical center
  MEGA BASS VOL ..... mechanical center
  S901 ..... 9 KHz

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM FREQUENCY COVERAGE ADJUSTMENT		
Frequency indication	531 kHz	1,629 kHz
Reading on digital voltmeter	0.8 ± 0.05 V	within 7.0 – 8.0 V
Adjusting element	L 4	check

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	621 kHz
CT1	1,404 kHz

Adjustment Location:



CD SECTION

Notes on Adjustment

1. Perform adjustment in service mode.
   After adjustment, be sure to release service mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.

Before Adjustment

Put the set into service mode and perform the following checks. Repair if there are any problems.

How to Put into the Test Mode

1. Short-circuit between the points Ⓐ and Ⓑ on the control board.
2. Turn the power on. (LCD all turns on.)
3. Release the short-circuit position Ⓐ and Ⓑ.

- **Sled Motor Check**

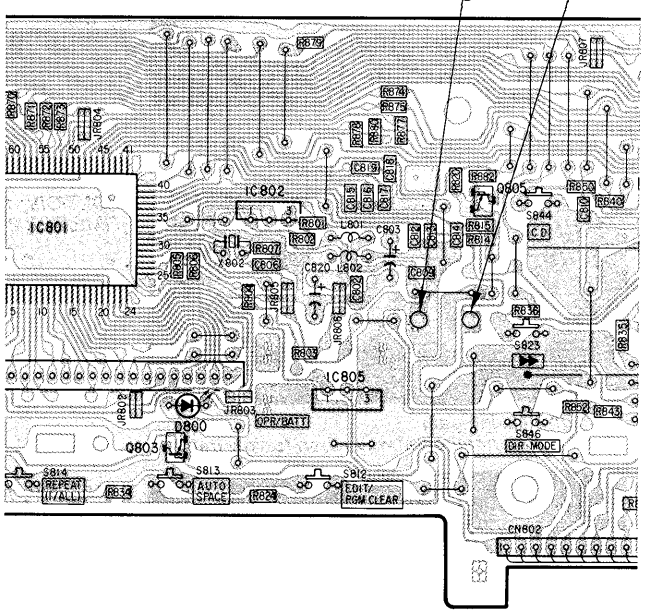
  Press ▶ key, then press ■ key.
  Press ▶▶| , |◀◀ keys and comfirm that the FOP moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises.
  ▶▶| : FOP moves to the outer circumference
  |◀◀ : FOP moves to the inner circumference

- **Focus Search Check**

1. Press ▶ key. (Focus search operation is performed continuously.)
2. Look at the FOP objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ key. (Focus search operation stops and the turntable continues to turn.)
4. Press ■ key again longer, the turntable stops.

Note: When the malfunction is occured by mis-passing other keys, turn off the power and check again from making the test mode.

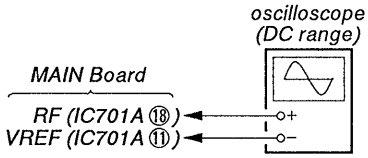
[CONTROL BOARD] (CONDUCTOR SIDE) Ⓐ Ⓑ



Focus Bias Adjustment

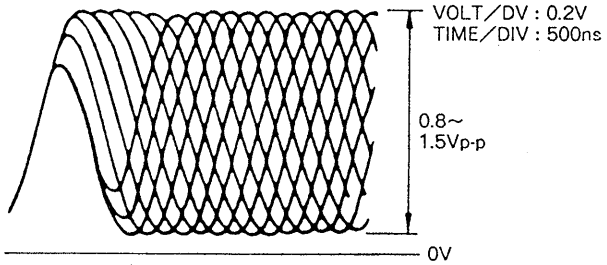
This adjustment is to be done when the optical block replaced.

Adjustment Procedure:



1. Connect the oscilloscope between IC701 pins ⑱ and ⑪.
2. Put the set into service mode.
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center. (Move the FOP to the music area on the disc to enable easy visibility of the eye pattern.)
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV702 so that the oscilloscope waveform os as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
6. Release service mode after adjustment is completed.

- RF signal reference waveform (eye pattern)

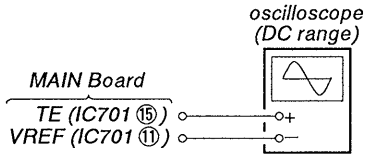


When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensivity.

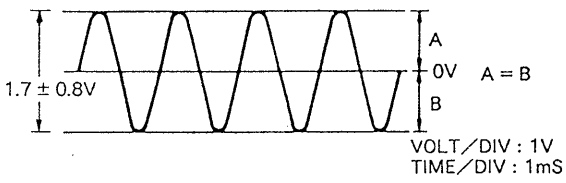
E. F Balance Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment Procedure:



1. Connect the oscilloscope between IC701 pins ⑮ and ⑪.
2. Put the set into service mode.
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center.
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV701 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
6. Release servise mode after adjustment is completed.



REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

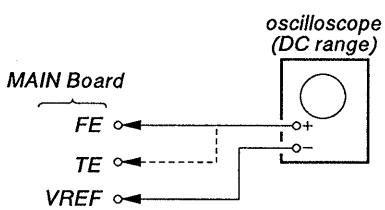
Symptoms / Tracking	Gain	Focus
• The time until music starts becomes longer for STOP ➡ ▶ PLAY or automatic selection (⏮ , ⏭ buttons pressed). (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP ➡ ▶ PLAY or automatic selection (⏮ , ⏭ buttons pressed).	—	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More poise during 2-axis device operation.	high	high

The following is a simple adjustment method.

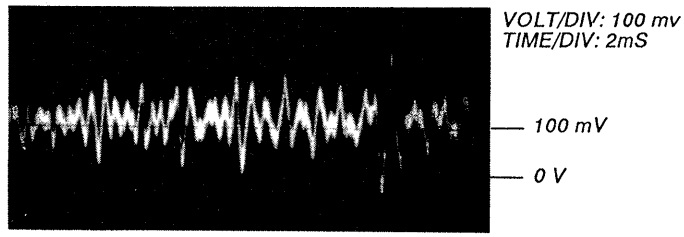
– Simple Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:

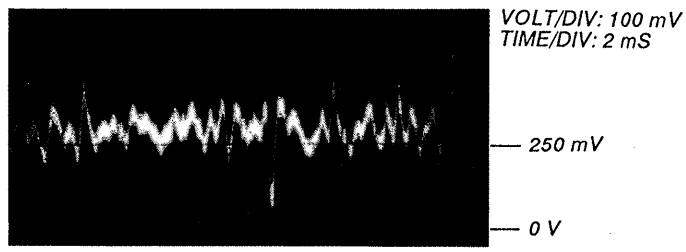


1. Keep the set horizontal.
   If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and press ▶ PLAY button.
3. Connect the oscilloscope between IC701 pins ⑰ and ⑪.
4. Adjustment RV703 so that the waveform is as shown in the figure below. (focus gain adjustment)

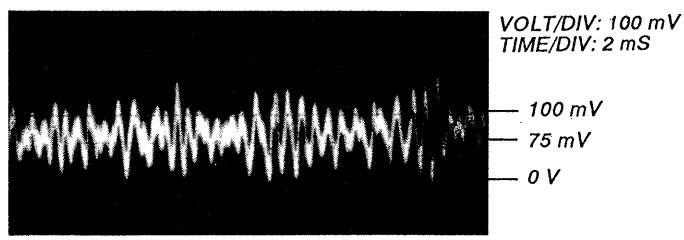


- Incorrent Examples (DC level changes more than on adjusted waveform)

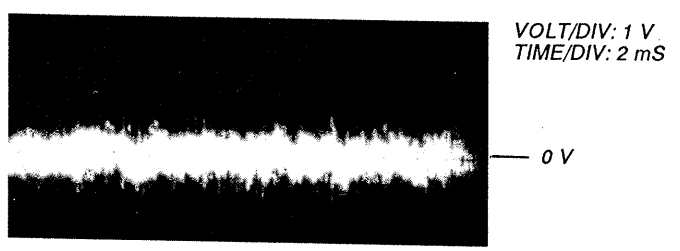
low focus gain



high focus gain

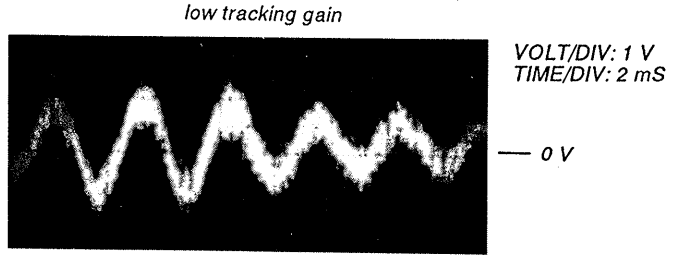


5. Connect the oscilloscope between IC701A pins ⑮ and ⑪.
6. Adjust RV704 so that the waveform is as shown in the figure below. (tracking gain adjustment)

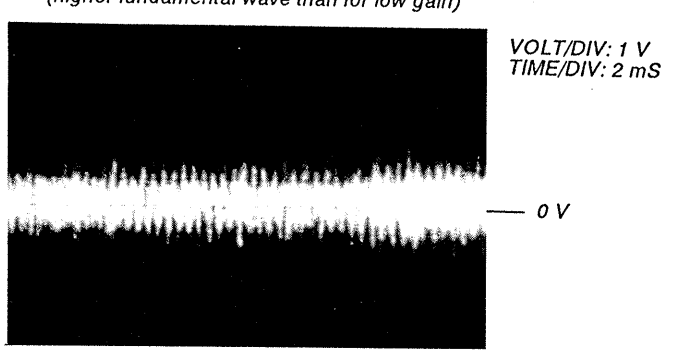


- Incorrect Examples (fundamental wave appears)

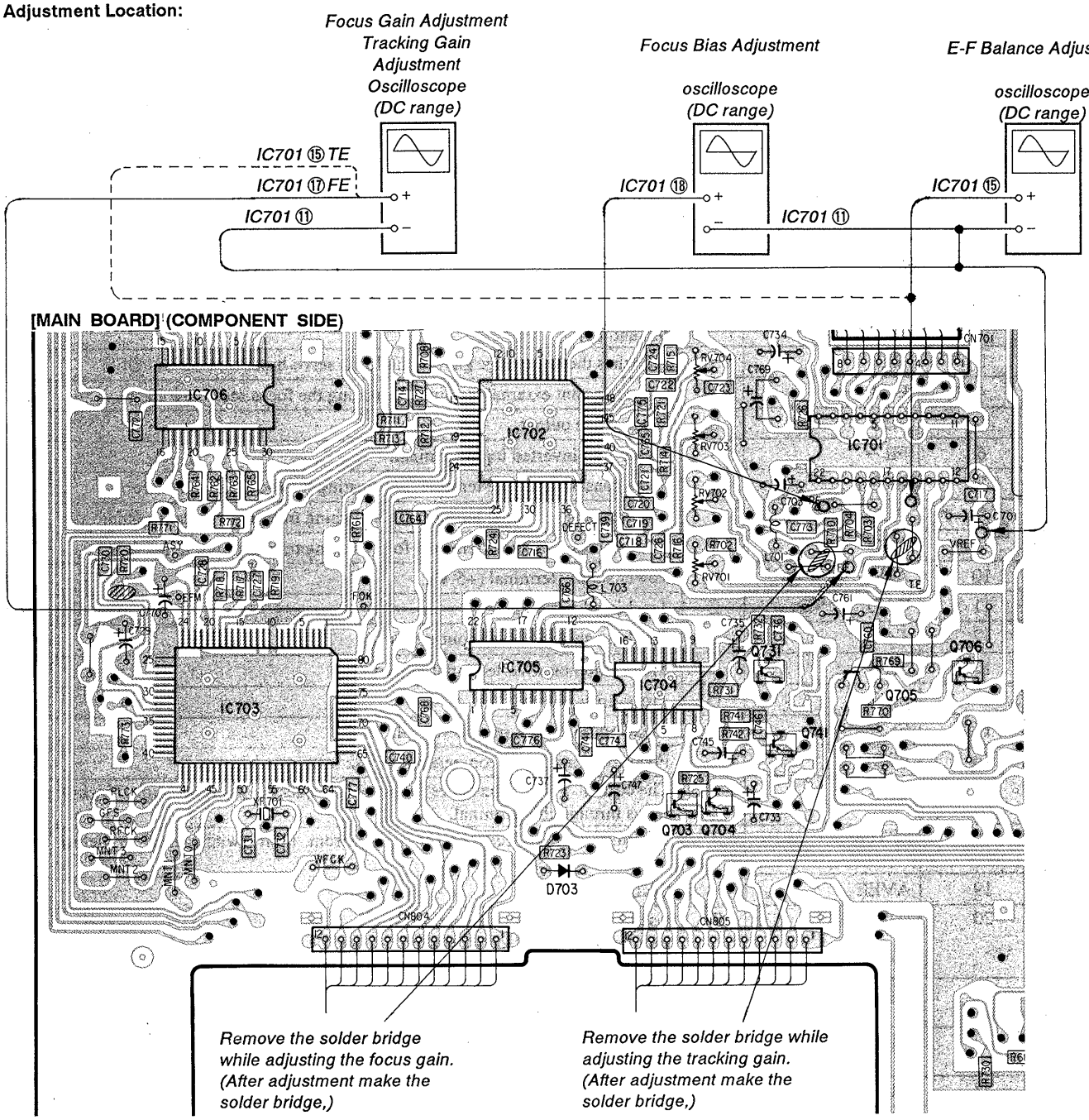
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)

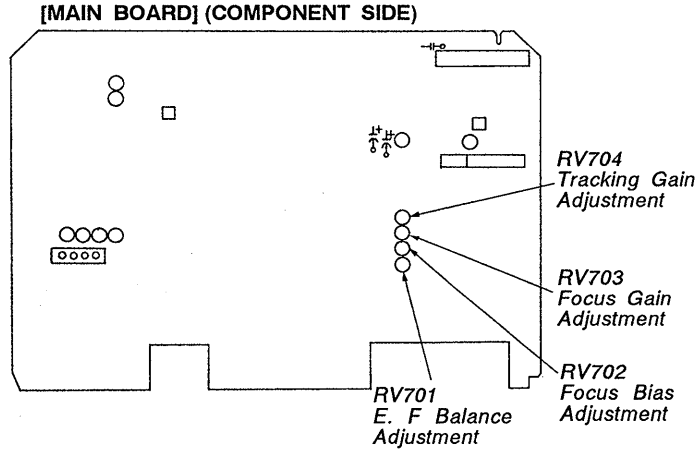


Adjustment Location:



When a servo analyzer is used.

[MAIN BOARD] (COMPONENT SIDE)



SECTION 6
DIAGRAMS

6-1. IC PORT TABLE

[IC702 (CXA1372Q) pin function description]

Pin number	Pin name	I/O	Pin description
1	VC	I	Midpoint voltage input terminal. GND when there are 2 power supplies. (Vcc+GND) /2 when there is a single power supply.
2	FGD	I	To lower the high range gain of the focus servo, insert a capacitor between this pin and pin 3.
3	FS3	I	Switches the high range gain of the focus servo based on FS3 ON/OFF.
4	FLB	I	Time constant external terminal for raising the focus servo low range.
5	FEO	O	Focus drive output.
6	FE –	I	Focus amp inverted input terminal.
7	SRCH	I	Time constant external terminal for creating the focus serch waveform.
8	TGU	I	Time constant external terminal for switching tracking high range gain.
9	TG2	I	Time constant external terminal for switching tracking high range gain.
10	AVcc	–	Power supply terminal (+5 V).
11	TAO	O	Tracking drive output.
12	TA –	I	Tracking amp inverted input terminal.
13	SL+	I	Tread amp non-inverted input terminal.
14	SLO	O	Tread drive output.
15	SL –	I	Tread amp inverted input terminal.
16	FSET	I	Focus tracking phase compensation peak setting terminal.
17	ISET	I	The current which determines focus search, tracking jump and thread kick height flows through this terminal.
18	SSTOP	I	Terminal for ON/OFF detect signal from limit switch used to detect the innermost portion of the disc.
19	AVEE	–	GND terminal.
20	(DIRC)	(I)	Used for 1-track jump operation. Equipped with a 47 kohm pull-up resistor. (Not used at present.)
21	LOCK	I	When L, the anti-misthreading circuit operates. Equipped with a 47 khom pull-up resistor.
22	CLK	I	Input terminal for the serial data transfer clock from the CPU (no pull-up resistor).
23	XLT	I	Input terminal for latch from the CPU (no pull-up resistor).
24	DATA	I	Input terminal for serial data from the CPU (no pull-up resistor).
25	XRST	I	Reset terminal. Reset when L (no pull-up resostor).
26	C. OUT	O	Number of tracks count signal output terminal.
27	SENS	O	Outputs FCZ, AS, TZC, SSTOP, etc. in response to commands from the CPU.
28	DGND	–	GND terminal.
29	MIRR	O	MIRR comparator output terminal. (DC voltage: connected to 10 kΩ load.)
30	DFCT	O	DEFECT comparator output terminal. (DC voltage: connected to 10 kΩ load.)
31	ASY	I	Auto asymmetry control input terminal.
32	EFM	O	EFM comparator output terminal. (DC voltage: connected to 10 kΩ load.)
33	FOK	O	Focus OK comparator output terminal. (DC voltage: connected to 10 kΩ load.)
34	CC2	I	Input terminal for input capacitively coupled with DEFECT bottom hold output.
35	CC1	O	DEFECT bottom hold output terminal.
36	DVCC	–	Power supply terminal (+5 V).
37	CB	I	Terminal connected to DEFECT bottom hold output capacitor.

Pin number	Pin name	I/O	Pin description
38	CP	I	Terminal connector to MIRR hold capacitor. MIRR comparator non-inverted input terminal.
39	RFI	I	Input terminal for input capacitively coupled with RF summing amp output.
40	RFO	O	RF summing amp output terminal. Checkpoint for eye pattern.
41	DVEE	–	GND terminal.
42	TZC	I	Tracking zero-cross comparator input terminal.
43	TE	I	Tracking error input terminal.
44	TDFCT	I	Terminal for connecting time constant capacitor in case of defect.
45	ATSC	I	Window comparator input terminal for ATSC detection.
46	FZC	I	Focus zero-cross comparator input terminal.
47	FE	I	Focus error input terminal.
48	FDFCT	I	Terminal for connecting time constant capacitor in case of defect.

[IC703 (CXD2500Q) pin function description]

Pin number	Pin name	I/O	Pin description
1	FOK	I	Focus OK input terminal. Used by servo auto sequencer together with SENS output.
2	FSW	O	Spindle motor output filter switching output.
3	MON	O	Spindle motor ON-OFF control output.
4	MDP	O	Spindle motor servo control.
5	MDS	O	Spindle motor servo control.
6	LOCK	O	GFS is sampleed at 460 Hz and H is output if GFS is H. L is output if GFS L 8 or more times in a row.
7	NC	–	
8	VCOO	O	Oscillator circuit output for analog EFM PLL.
9	(VCOI)	(I)	Oscillator circuit input for analog EFM PLL. fLOCK = 8.6436 MHz. (GND on present unit.)
10	TEST	I	Test terminal. Always GND.
11	(PDO)	(O)	Analog EFM PLL charge pump output. (Not used at present.)
12	V_{SS}	–	GND
13	NC	–	
14	NC	–	
15	NC	–	
16	(VPCO)	(O)	PLL charge pump output for varipitch. (Not used at present.)
17	(VCKI)	(O)	Clock input (fccenter = 16.9344 MHz) from external VCO for varipitch. (GND on present unit.)
18	FILO	O	Filter output for master PLL (slave=digital PLL).
19	FILI	I	Filter input for master PLL.
20	PCO	O	Charge pump output for master PLL.
21	AV_{SS}	–	Analog GND.
22	CLTV	I	VCO control volatge input for master.
23	AV_{DD}	–	Analog power supply (+5 V).
24	RF	I	EFM signal input.
25	(TEST2)	(I)	Used as GND (BIAS).
26	(TEST3)	(I)	Used as GND (ASYI).
27	ASYO	O	EFM full swing output (L=Vss, H=VDD).
28	(TEST4)	(I)	Used as GND.
29	NC	–	
30	PSSL	I	Audio data output mode switching input. Serial output when L and parallel output when H.
31	(WDCK)	(O)	D/A interface for 48-bit slot. Word clock: f=2 Fs. (Not used at present.)
32	LRCK	O	D/A interface for 48-bit slot. LR clock; f=Fs.
33	V_{DD}	–	Power supply (+5 V).
34	DATA	O	DA16 (MSB) output when PSSL=1. 48-bit slot serial data when PSSL=0 (2s'COMP, MSB format).
35	CLOCK	O	DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.
36	(DATA)	(O)	DA14 output when PSSL=1. 64-bit slot serial data when PSSL=0 (2s'COMP, LSB format). (Not used at present.)
37	(CLOCK)	(O)	DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0. (Not used at present.)
38	(LRCK)	(O)	DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0. (Not used at present.)
39	(GTOP)	(O)	DA11 output when PSSL=1. GTOP output when PSSL=0. (Not used at present.)

Pin number	Pin name	I/O	Pin description
40	(XUGF)	(O)	DA10 output when PSSL=1. XUGF output when PSSL=0. (Not used at present.)
41	(PLCK)	(O)	DA09 output when PSSL=1. XPLCK output when PSSL=0. (Not used at present.)
42	(GFS)	(O)	DA08 output when PSSL=1. GFS output when PSSL=0. (Not used at present.)
43	(RFCK)	(O)	DA07 output when PSSL=1. RFCK output when PSSL=0. (Not used at present.)
44	(C2P0)	(O)	DA06 output when PSSL=1. C2P0 output when PSSL=0. (Not used at present.)
45	(XRACF)	(O)	DA05 output when PSSL=1. XRAOF output when PSSL=0. (Not used at present.)
46	(MNT3)	(O)	DA04 output when PSSL=1. MNT3 output when PSSL=0. (Not used at present.)
47	(MNT2)	(O)	DA03 output when PSSL=1. MNT2 output when PSSL=0. (Not used at present.)
48	(MNT1)	(O)	DA02 output when PSSL=1. MNT1 output when PSSL=0. (Not used at present.)
49	(MNT0)	(O)	DA01 output when PSSL=1. MNT0 output when PSSL=0. (Not used at present.)
50	APTR	(O)	Control output for apertrue correction. H for R channel. (Not used at present.)
51	APTL	(O)	Control output for apertrue correction. H for L channel. (Not used at present.)
52	V_{SS}	–	GND
53	XTAI	I	16.9344 MHz Xtal oscillator circuit input, or 33.8688 MHz input.
54	XTAO	O	16.9344 MHz Xtal oscillator circuit input.
55	(XTSL)	(I)	Xtal selection input terminal. Xtal is L at 16.9344 MHz and H at 33.8688 MHz. (GND on present unit.)
56	(FSTT)	(O)	Outputs the result of 2/3 frequency dividing the signals from pins 53 and 54. Not altered by varipitch. (Not used at present.)
57	(C4M)	(O)	4.2336 MHz output. Changes simultaneously when varipitch is used. (Not used at present.)
58	(C16M)	(O)	16.9344 MHz output. Changes simultaneously when varipitch is used. (Not used at present.)
59	(MD2)	(I)	Digital-Out ON/OFF control. ON when H, OFF when L.
60	(DOUT)	(O)	Digital-Out output terminal. (Not used at present.)
61	(EMPH)	(O)	H output if the disc being played back contains emphasis data. L output otherwise. (Not used at present.)
62	(WFCK)	(O)	WFCK (Write Frame Clock) output. (Not used at present.)
63	SCOR	O	H output if subcode sync S0 or S1 is detected.
64	(SBSO)	(O)	SubP-W serial output. (Not used at present.)
65	(EXCK)	(I)	Clock input for SBSO readout. (Not used at present.)
66	SQSO	O	SubQ 80-bit and PCM peak level data 16-bit output.
67	SQCK	I	Clock input for SQSO readout.
68	MUTE	I	Mute on when H, L otherwise.
69	SENS	–	SENS output. Output to CPU.
70	XRST	I	System reset. L for reset.
71	DATA	I	Terminal for serial data input from CPU.
72	XLAT	I	Latches serial data at the falling edge of the latch input from the CPU.
73	V_{DD}	–	Power supply (+5 V).
74	CLOK	I	Terminal for serial data transfer clock from CPU.
75	SEIN	I	Terminal for sense input from SSP.
76	CNIN	I	Track jump counter signal input.
77	DATO	O	Serial data output to SSP.
78	XLTO	O	Serial data latch output to SSP. Latch at falling edge.
79	CLKO	O	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Used by the auto sequencer when jumping 128 or more tracks.

[IC705 (SM5840DS) pin function description]

(In the descriptions which follow, "fs" indicates the input data sampling frequency.)

Pin number	Pin name	I/O	Pin description	
1	CKSL	I	Normal/high speed mode select. (Normal mode when CKSL= E.) (High speed mode when CKSL= L.)	
2	XTI	I	Oscillator input trerminal. (Fixed at 16.9344 MHz for CD systems.) (If CKSL= H, 384fs=16.9344 MHz; 44.1 kHz) (If CKSL= L, 192fs=16.9344 MHz; 88.2 kHz)	
3	XTO	O	Oscillator output terminal.	
4	CKO	O	Oscillator output clock. (Frequency is the same as TXI terminal.)	
5	VSS	–	GND terminal.	
6	(NC)	–		
7	(NC)	–		
8	MDT	I	Mode set data.	For setting digital attenuator and mode flag register.
9	MCK	I	Mode set clock.	
10	MLE	I	Mode set latch enable.	
11	RST	I	System reset (initialize).	
12	BCKO	O	Output bit clock.	
13	DOR	O	R channel data output. (If OMOD flage= L: 8fs data output) (If OMOD flage= H: 4fs data output)	
14	DOL	O	L channel data output. (If OMOD flage= L: 8fs data output) (If OMOD flage= H: 4fs data output)	
15	WCKO	O	Output word clock.	
16	VDD	–	Power supply terminal (5 V)	
17	(NC)	–		
18	(NC)	–		
19	(NC)	–		
20	LRCI	I	Input data sampling rate (fs) clock. On CD systems: 44.1 kHz for normal and 88.2 for high speed mode.	
21	BCKI	I	Input bit clock.	
22	DIN	I	Input data.	

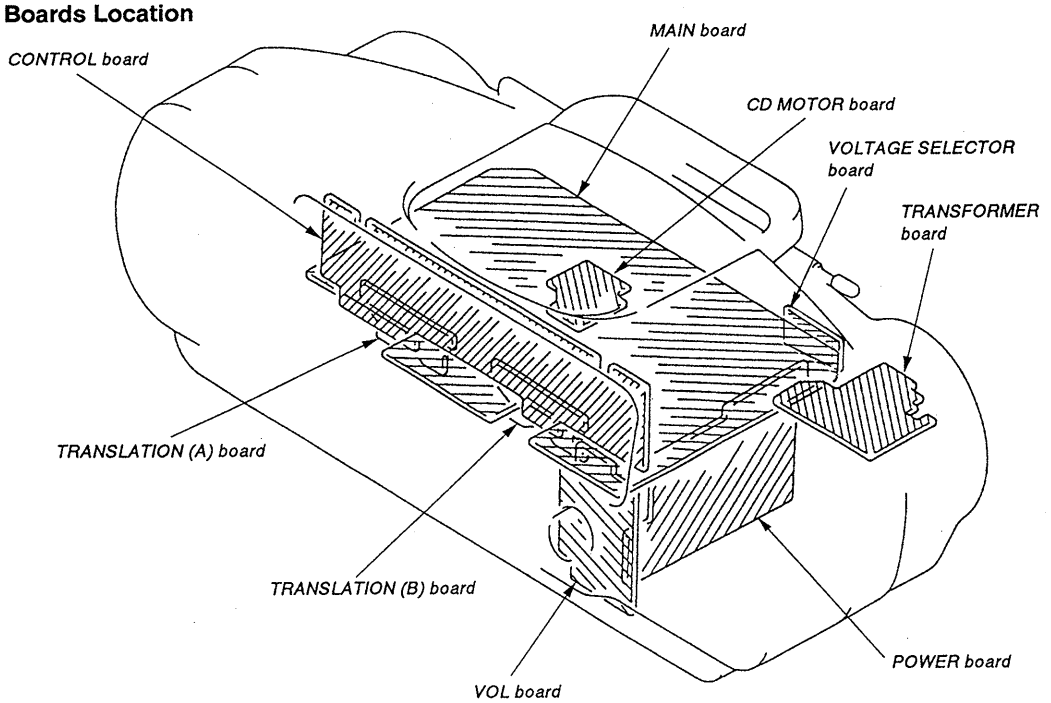
【IC801 (CXP50716 – 004Q) pin function description】

Pin number	Pin name	I/O	Pin description
1 – 19	SG18 – SG0	O	LCD segment signal output terminals.
20 – 23	COM3 – COM0	O	LCD command signal output terminals.
24 – 26	VLC1 – VLC3	I	LCD driver bias power supply terminals.
27	(VL)	–	(Not used at present.)
28	RMC	I	Remote control input terminal.
29	SCOR(CD)	I	Signal input terminal for informing microprocessor of start of SUB-Q data read-in.
30	TX	I	Sub CLK input terminals (32.768 kHz). Sub CLK is used for all clock counters.
31	TEX	O	
32	RST	O	Reset output terminal.
33	NC	–	Not used at present.
34	VDD	–	Power supply terminal.
35 – 42	A0 – A7	I	Key input terminals.
43	NC	–	Not used at present.
44	SCK	O	Terminal for sync CLOCK output when data is being output from pin 45 of IC801. Sync CLOCK output terminal for when data is being input to pin 46 of IC801.
45	SO	O	Terminal for outputting commands to the servo IC in CD mode. Terminal for outputting data to the PLL-IC in tuner mode.
46	SI	I	Sub-Q data input terminal in CD mode. Terminal for inputting IF sync data from the PLL-IC in tuner mode.
47	S/LOAD	O	Date read-in control signal for IC605 (parallel-serial converter), which keeps the microprocessor (IC801) informed of the status of decks A and B. M-CLK is input to IC605 from pin 68 of IC801. A signal is output at the rising edge of M-CLK, and the microprocessor reads-in its level at the falling edge of M-CLK, allowing it to determine the status of decks A and B.
48	INHIBIT	O	
49	P-CONT	O	Output terminal for turning on REC IC output. H when active.
50	REG. C	I	REC IC output is input via this terminal when pin 49 of IC801 is H. If no H signal is input to pin 50, it is assumed that there is virtually no power being suppled and pin 49 becomes L, halting the system.
51	LATCH(CD)	–	Serial data read-in LATCH signal output terminal.
52	MUT(CD)	O	Terminal for mutting output to IC703 CD audio OUT.
53	XRST(CD)	O	Output terminal for resetting the ICs in the CD block. L is output when switching to CD from another function.
54	LD. ON(CD)	O	Terminal for both laser diode control output and muting output to the BTL driver. At H output, laser and BTL driver are OFF. At H output, laser and BTL driver are ON. L during PLAY, H during STP. When switching to CD from another function, H is output to prevent improper thread, spindle or lens operation. It changes to L once the power supply has stabilized, and the TOC is read.
55	TIMER, MODE	I	This terminal is used to select whether the active mode should be PLAY or REC when the unit is started at a preset time by the timer. For play, H is input, for REC, L.
56	OPEN(CD)/SD	I	H is input when the CD tray is open, L when closed.
57	S. DATA	I	Terminal for serial data input from IC605. Refer to the pin description for pin 48 of IC801 for information on the read-in method.
58	SENSE(CD)	I	Terminal for SENSE input from IC703 (IC).
59	MLE/PERI	O	The function of this terminal can be switched by IC803. In CD mode it is used for data LATCH signal output to the digital filter (when emphasis is ON, etc.) In tuner mode, it is used to output to the ENABLE signal which permits serial data to be read into PLL-IC.

Pin number	Pin name	I/O	Pin description
60	A•MUT	O	Terminal for system MUT output which suppresses noise when power is turned on and off, and when switching between functions.
61	WP	I	Trigger input terminal used for the command to stop the 4.19 MHz CLK in order to reduce power consumption. The system halts and the 4.19 MHz CLK stops if a matching L level is detected twice. (Ports switch to Hi-z mode or L output mode.)
62	AMS/ HI•SP	I	The function of this terminal can be switched by IC803. In tape mode, AMS music/no music pulses are input to it. There pulses are counted and used by the AMS N-selection function. In CD mode this terminal is monitored during CD dubbing or timer CD REC operation to determine the dubbing speed. (L for Hi-speed, H for Nor-speed.)
63	STB2	O	When 20-bit data output (IC801 pins 65 and 66) to IC604 is completed, L is output from this terminal. This L signal tells IC604 to begin serial-parallel conversion.
64	STB1	O	When 12-bit data output (IC801 pins 65 and 66) to IC603 is completed, H is output from this terminal. This H signal tells IC603 to begin serial-parallel conversion.
65	M•CLK	O	Terminals for serial data and serial CLK output to IC603 and IC604. (Data is read in at the rising edge of CLK.)
66	M•DATA	O	
67 – 70	SG27 – SG24	O	LCD segment signal output terminals.
71	VSS	–	GND.
72	XTAL	I	Main CLK (4.19 MHz).
73	NC	–	Not used at present.
74	EXTAL	O	Main CLK (4.19 MHz).
75	V•REF	–	Reference voltage terminal.
76 – 80	SG23 – SG19	O	LCD segment signal output terminals.

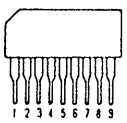
MEMO

• Circuit Boards Location

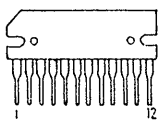


• Semiconductor Lead Layouts

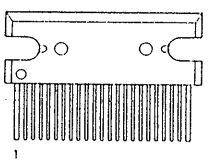
BA338
BA6208



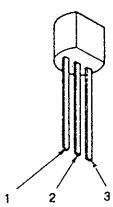
BA3924



LA4620

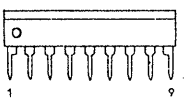


PST572D
PST572J
S-80740AN
S-81250HG



1 Ground
2 Input
3 Output

μ PC1330HA



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2SB1013-4
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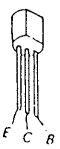
2SC2001-LK
2SC3070
2SD1387



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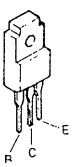

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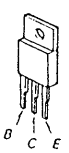

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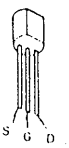
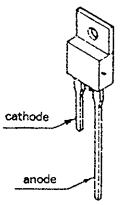
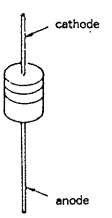


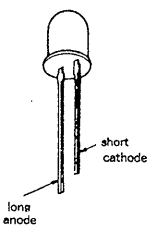
F5KQ30L



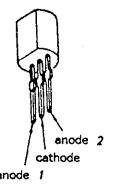
HZS30-1L
RD2.0ES-B1
RD2.4ES-B2
RD6.8ES-B1
RD7.5ES-B2
RD8.2ES-B1
RD9.1ES-B2
1SR139-100
1SS119



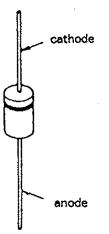
SLR-34VR70F-150



SVC342LM-V

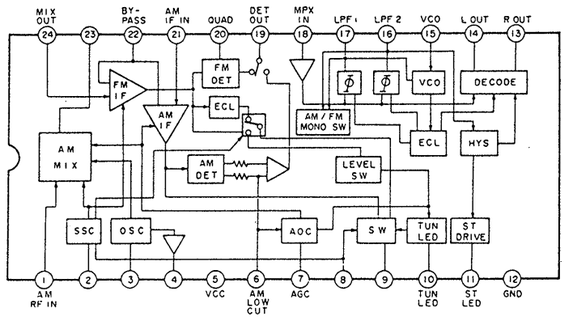


30DF2

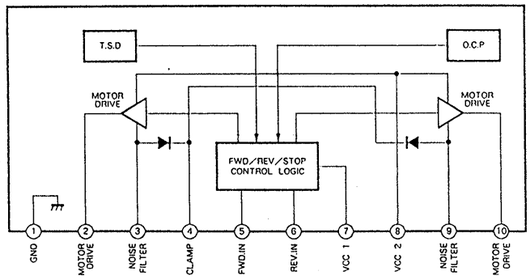


• IC Block Diagrams

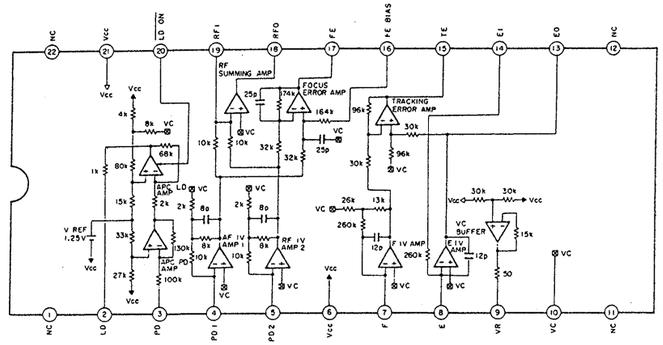
IC1 TA2012F



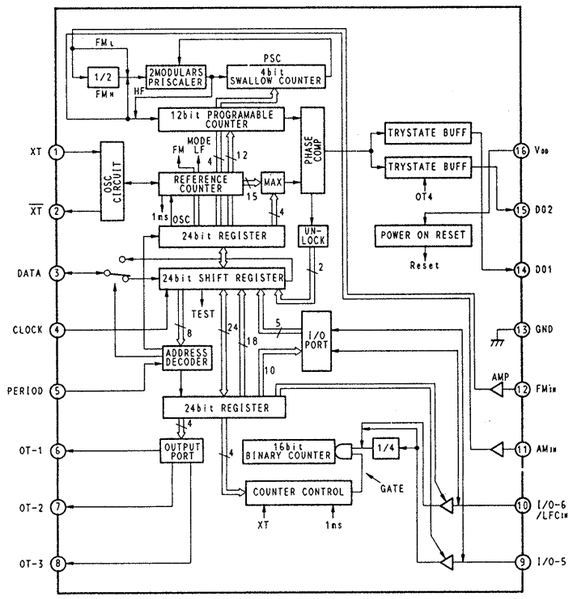
IC602 LB1641



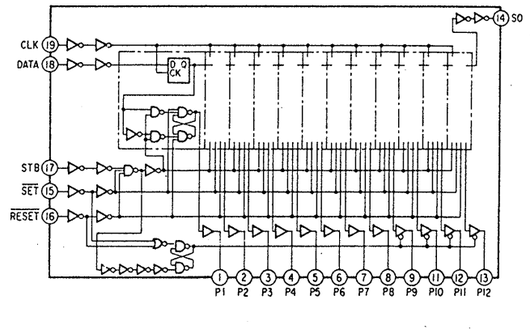
IC701 CXA1571S



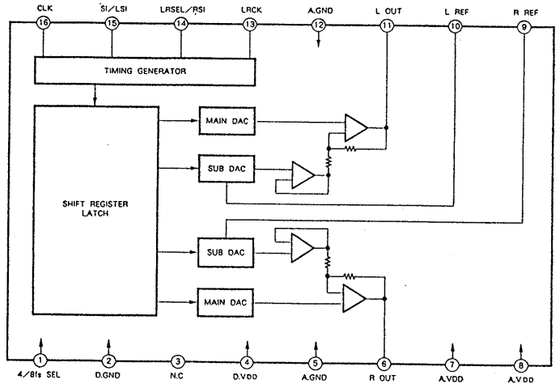
IC3 TC9216P



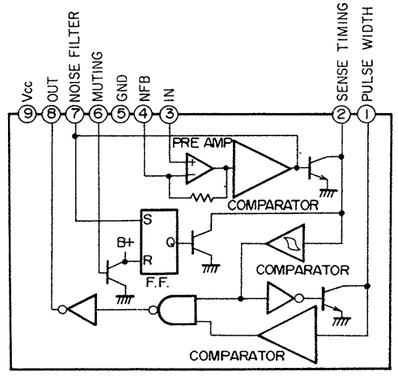
IC603 CX-7991



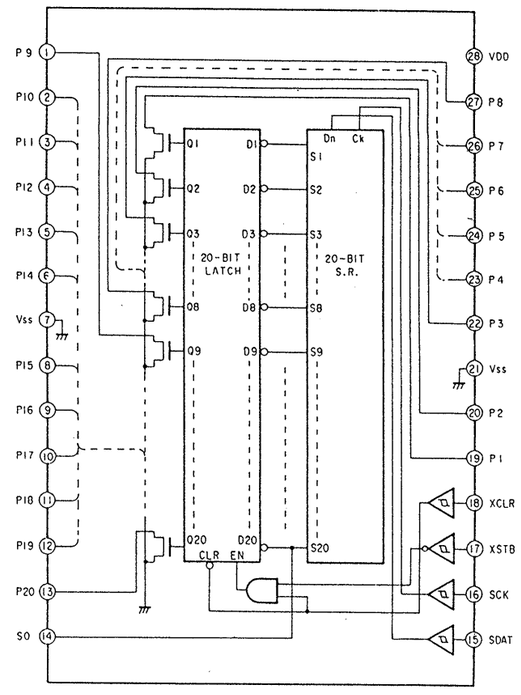
IC704 μPD6376



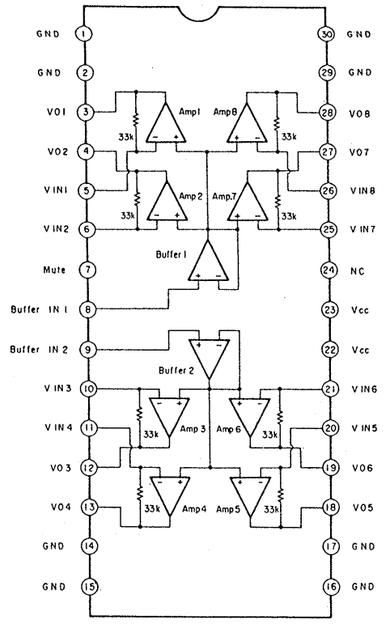
IC601 BA338



IC604 CXP2001M

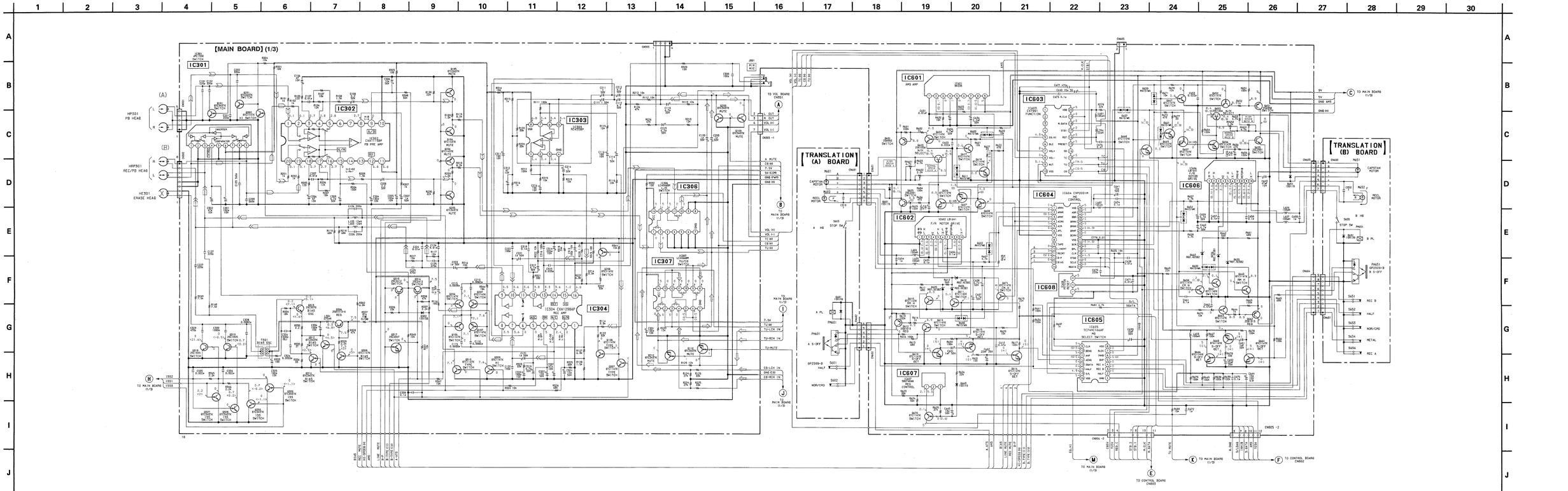


IC706 LA6536M



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- : B + Line.
- : adjustment for repair.
- Power voltage is dc 12 V and fed with regurated dc power supply from external BATTERY TERMINAL.
- Voltages is dc with respect to ground under no-signal (detuned) conditions.
  - no mark : DECK-A PB
  - ( ) : DECK-B PB
  - < > : DECK-B REC
  - * : Impossible to meaure the voltage at the marked points.
- Signal path.
  - : FM : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)


[MAIN BOARD] (1/3)
IC301
IC302
IC303
IC304
IC306
IC307
[TRANSLATION (A) BOARD
IC601
IC602
IC603
IC604
IC605
IC606
IC607
IC608
[TRANSLATION (B) BOARD
HP301 PB HEAD
HRP301 REC/PB HEAD
HE301 ERASE HEAD
TO MAIN BOARD (1/3)
TO VOL BOARD
TO CONTROL BOARD
CAPSTAN MOTOR
REEL MOTOR
STOP SW
A PL
A S-OFF
6P2509-B HALF
NOR/CRO
B HD
B PL
B S-OFF
REC B
HALF
NOR/CRO
METAL
REC A

6-3. CD, TUNER SECTION SCHEMATIC DIAGRAM

- Waveforms

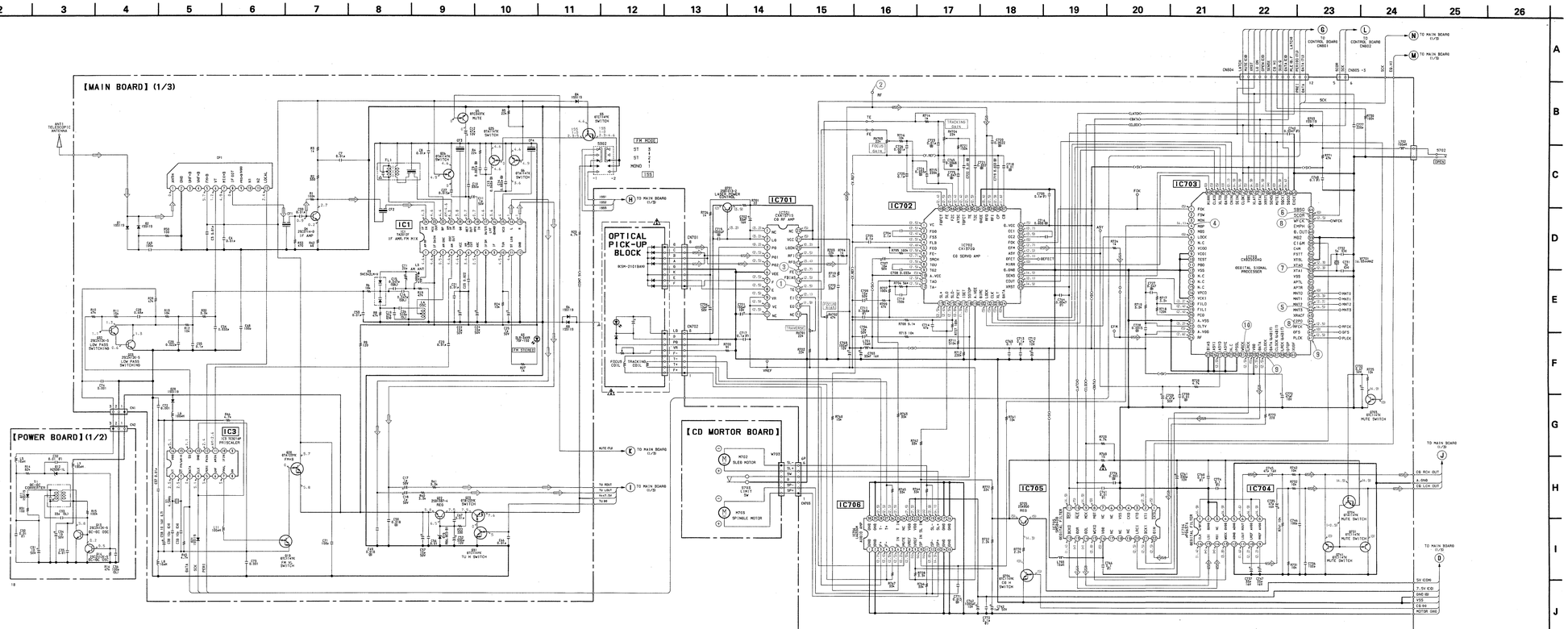
❶ 0V, APPROX. 500mVp-p, IC701 ⑱ PLAY	❼ 4Vp-p, IE 934 MHz, IC703A ㊽
❷ 1.2Vp-p, IC701 ㉑ PLAY (TP RF)	❽ 5Vp-p, 135 µsec, IC703 ㊸, ㊹ PLAY
❸ 0V, APPROX. 100mVp-p, IC701A ㉒ PLAY	❾ 5Vp-p, ㊸ 0.45 µ sec, ㊹ 0.23 µ sec, ㊸IC703 ㉘, ㊹IC703 ㉙
❹ 1Vp-p, 7.5 µ sec, IC703 ㊸ PLAY	❿ 3Vp-p, 12 µ sec, IC703 ㊹
❺ 5Vp-p, 135 µ sec, IC703 ㊸ PLAY	⓫ 5.2Vp-p, 32.768kHz, IC801 ㊽
❻ 5Vp-p, 13.5msec, IC703 ㊸	⓬ 3Vp-p, 4.19MHz, IC801 ㊾

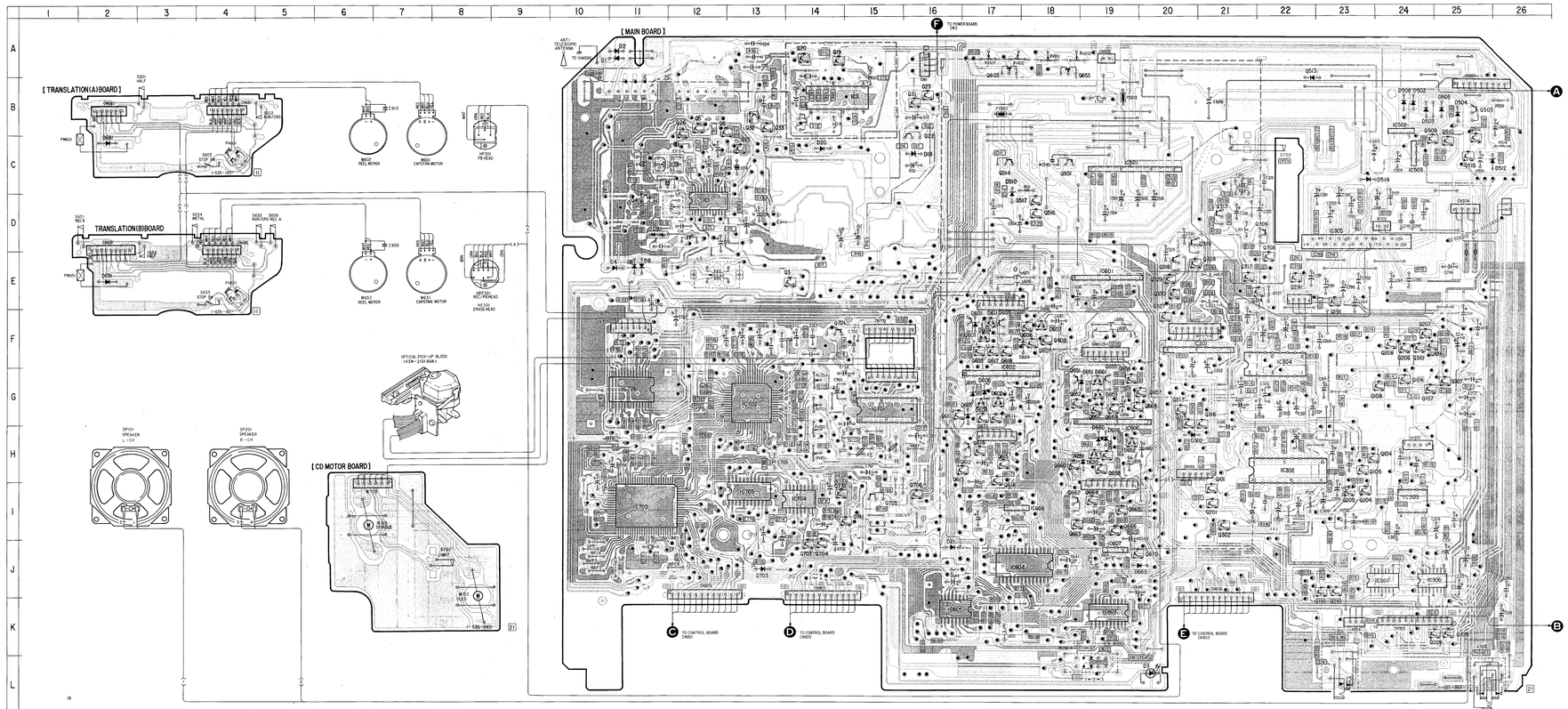
Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- ═══ : B + Line.
- [_____] : adjustment for repair.
- Power voltage is dc 12 V and fed with regurated dc power supply from external BATTERY TERMINAL.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : CD
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM ⇨ : CD





• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	A-11	IC604	J-18	Q327	F-20
D2	A-11	IC605	K-16	Q328	E-21
D3	L-20	IC606	H-19	Q329	E-20
D4	E-11	IC607	J-19	Q330	E-20
D6	E-11	IC608	I-17	Q501	C-18
D8	E-11	IC701	G-15	Q503	B-25
D9	D-11	IC702	G-13	Q509	C-25
D19	C-16	IC703	I-11	Q510	C-25
D20	C-14	IC704	I-14	Q512	C-25
D21	J-16	IC705	I-13	Q514	C-17
D302	H-20	IC706	G-11	Q515	C-25
D502	B-24			Q516	D-18
D503	B-24	Q3	E-14	Q517	D-18
D504	B-25	Q4	D-11	Q601	F-17
D505	B-25	Q5	B-12	Q602	F-17
D506	B-24	Q6	B-13	Q603	A-17
D510	D-17	Q19	A-14	Q605	F-17
D512	C-26	Q20	A-14	Q606	F-18
D513	B-23	Q22	C-16	Q607	F-18
D514	C-24	Q23	B-16	Q608	F-18
D601	F-17	Q25	C-13	Q610	G-16
D602	G-17	Q26	B-12	Q611	G-17
D605	G-17	Q31	B-16	Q612	H-17
D606	G-17	Q32	B-13	Q613	H-17
D607	F-18	Q33	B-13	Q615	H-17
D608	G-17	Q101	I-21	Q616	I-17
D609	F-17	Q104	H-24	Q617	F-17
D610	G-17	Q105	H-23	Q618	F-17
D611	F-17	Q106	G-24	Q619	H-17
D630	H-19	Q107	G-25	Q651	G-18
D651	G-19	Q108	G-24	Q652	G-19
D652	H-19	Q109	K-25	Q653	A-18
D655	H-19	Q110	J-23	Q655	G-19
D656	H-19	Q191	E-23	Q656	G-19
D659	G-19	Q201	I-21	Q657	G-20
D660	H-19	Q204	I-23	Q658	H-19
D661	G-19	Q205	I-23	Q660	H-18
D663	J-20	Q206	F-24	Q661	H-19
D681	C-2	Q207	F-24	Q662	I-18
D691	E-2	Q208	F-24	Q663	I-19
D703	J-13	Q209	K-25	Q664	I-19
		Q210	J-23	Q665	I-19
IC1	D-12	Q291	E-22	Q666	I-19
IC3	B-14	Q302	I-21	Q667	G-19
IC301	F-21	Q306	D-22	Q668	G-20
IC302	H-22	Q307	G-17	Q669	G-19
IC303	I-24	Q308	E-22	Q670	J-20
IC304	F-22	Q309	F-25	Q671	G-17
IC305	D-23	Q310	F-24	Q701	F-14
IC306	J-25	Q312	E-21	Q703	J-14
IC307	J-24	Q313	D-21	Q704	J-14
IC501	C-19	Q314	E-22	Q705	I-15
IC502	B-24	Q315	G-20	Q706	I-16
IC503	C-24	Q316	G-21	Q731	I-14
IC601	E-19	Q317	G-20	Q741	I-15
IC602	G-17	Q318	E-20		
IC603	K-19	Q319	D-21		

Note:

- ○——● : parts extracted from the component side.
- ●——● : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.

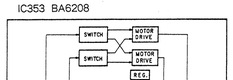
Note:
- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.

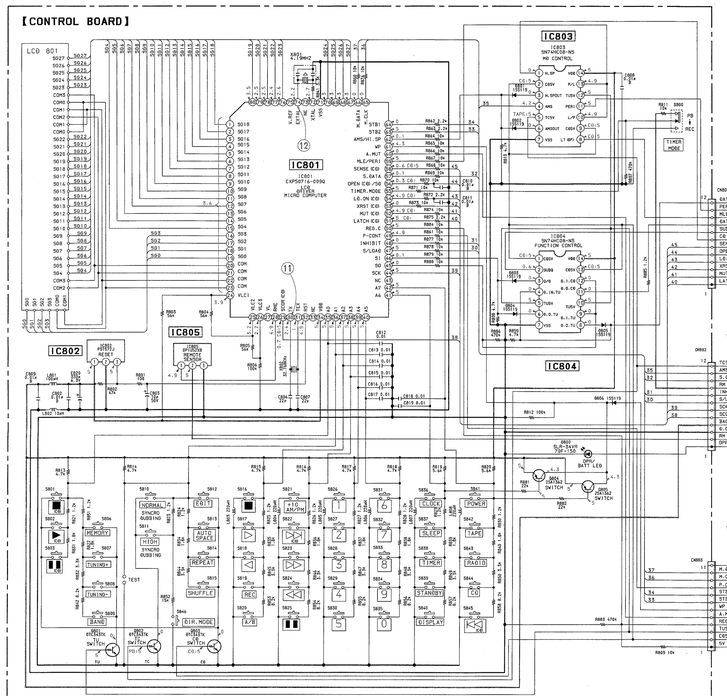
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

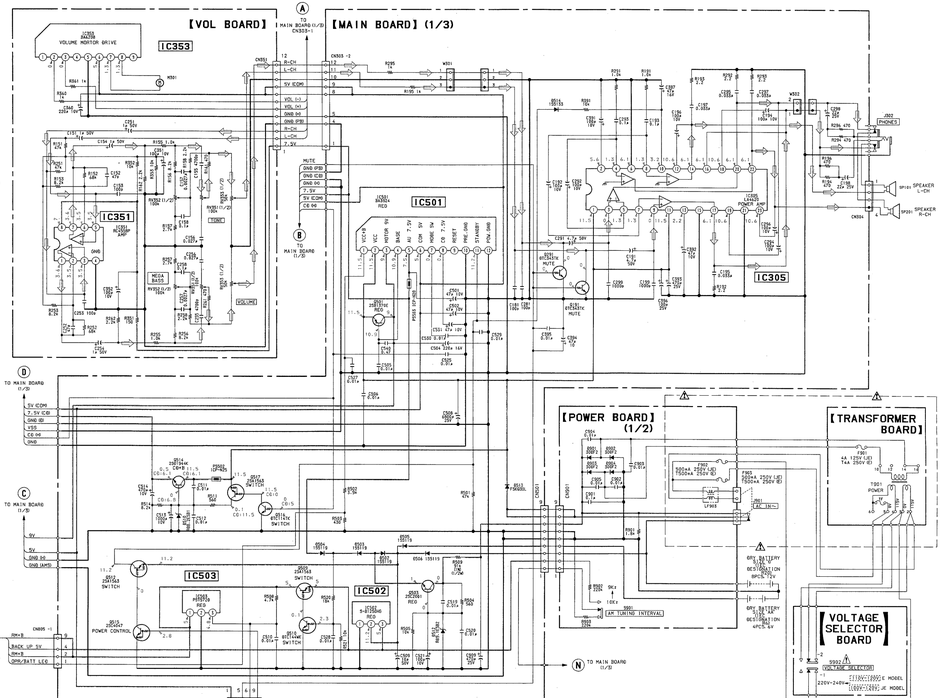
- ⏚ : B ÷ Line.
- Power voltage is dc 12 V and fed with regurated dc power supply from external BATTERY TERMINAL.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM

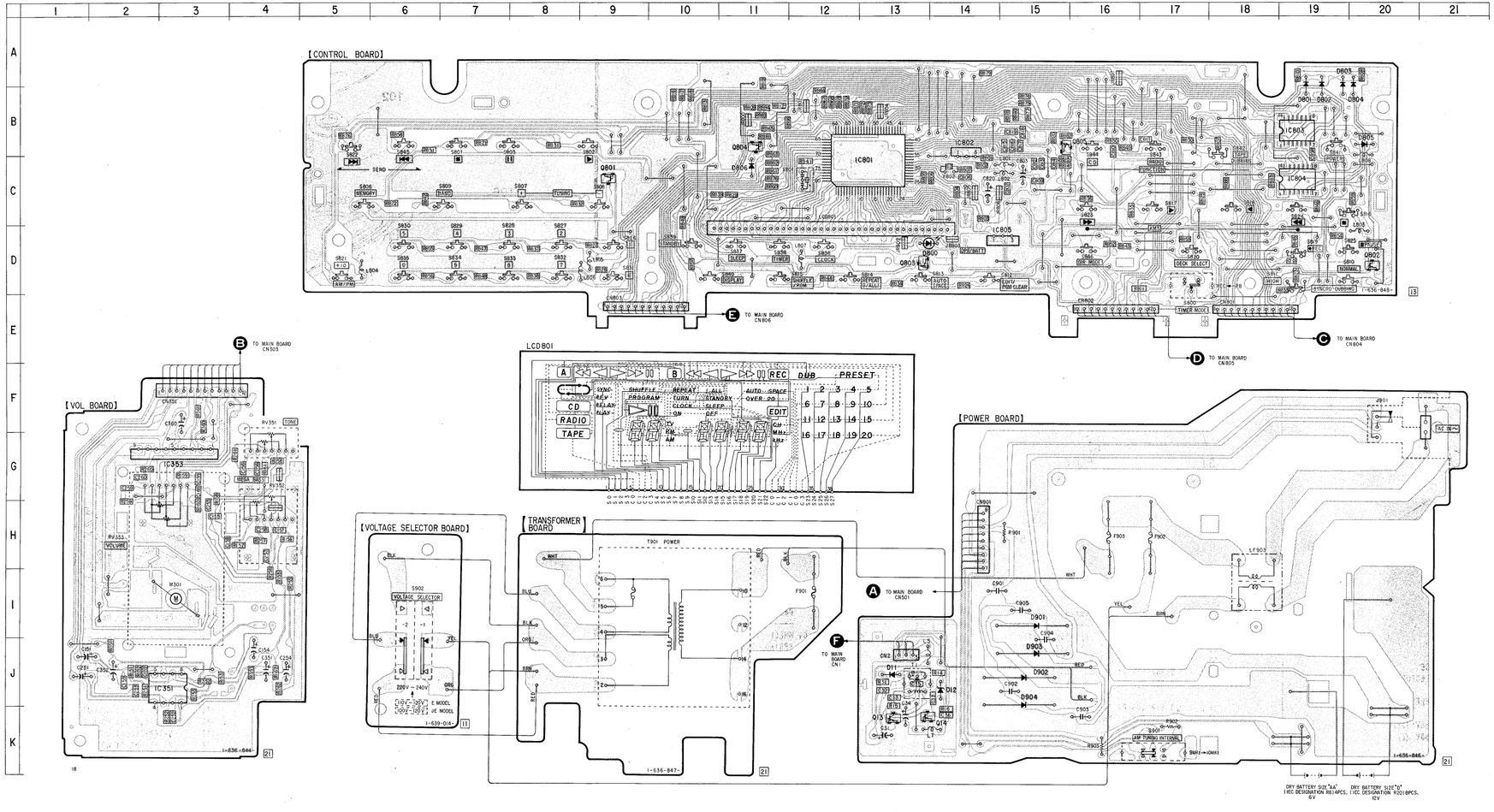
- **IC Block Diagram**

IC353 BA6208









• **Semiconductor Location**

Ref. No.	Location
D11	J-13
D12	J-14
D800	D-14
D801	B-19
D802	B-19
D803	B-19
D804	B-20
D805	B-20
D806	C-11
D901	I-15
D902	J-15
D903	J-15
D904	J-15
IC351	J-3
IC353	G-3
IC801	C-13
IC802	B-14
IC803	B-19
IC804	C-19
IC805	D-15
Q13	K-13
Q14	K-14
Q801	C-9
Q802	D-20
Q803	D-13
Q804	B-11
Q805	B-15

Note:
- ○——— : parts extracted from the component side.
- ●——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern on the side which is seen.

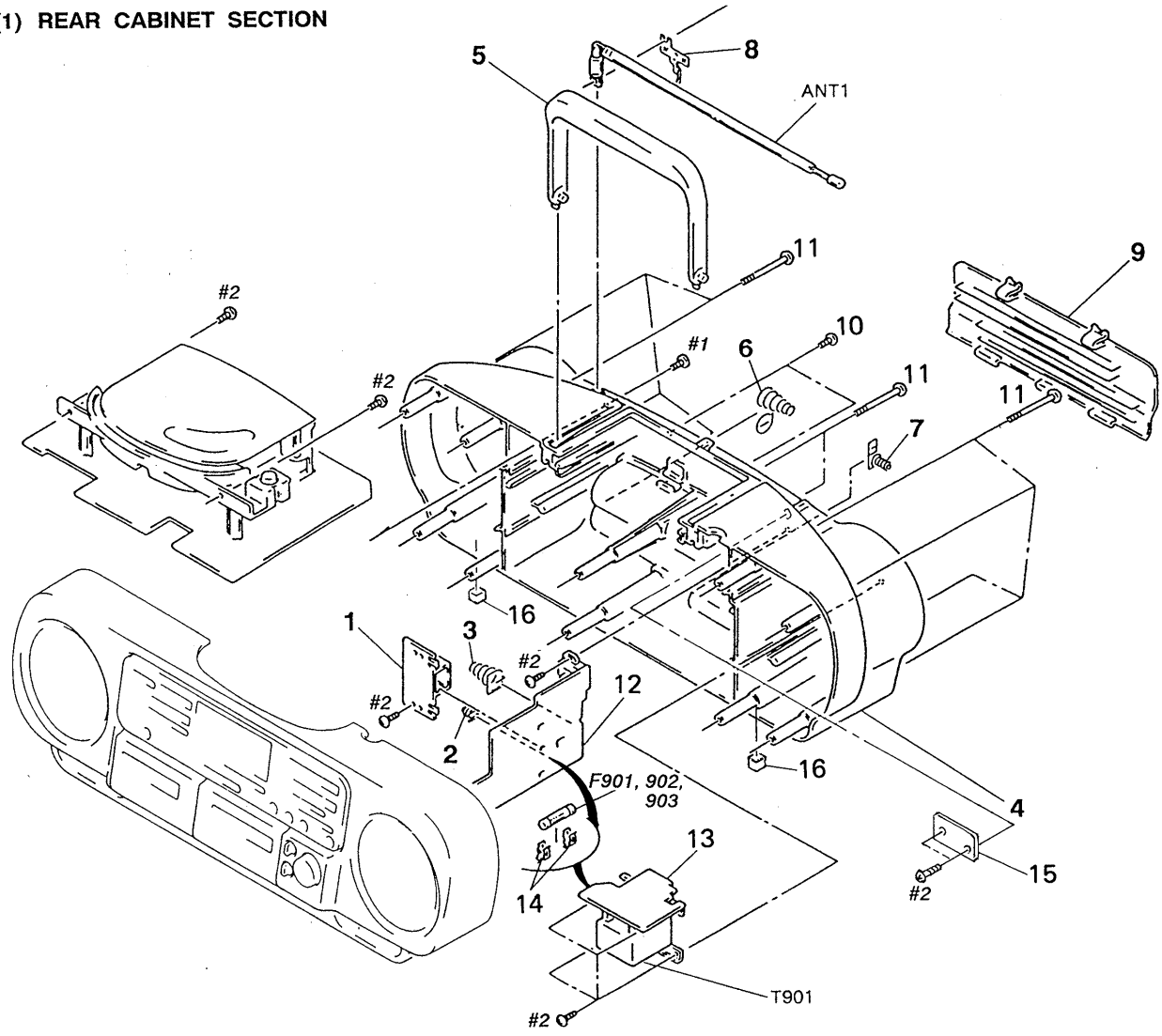
SECTION 7
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

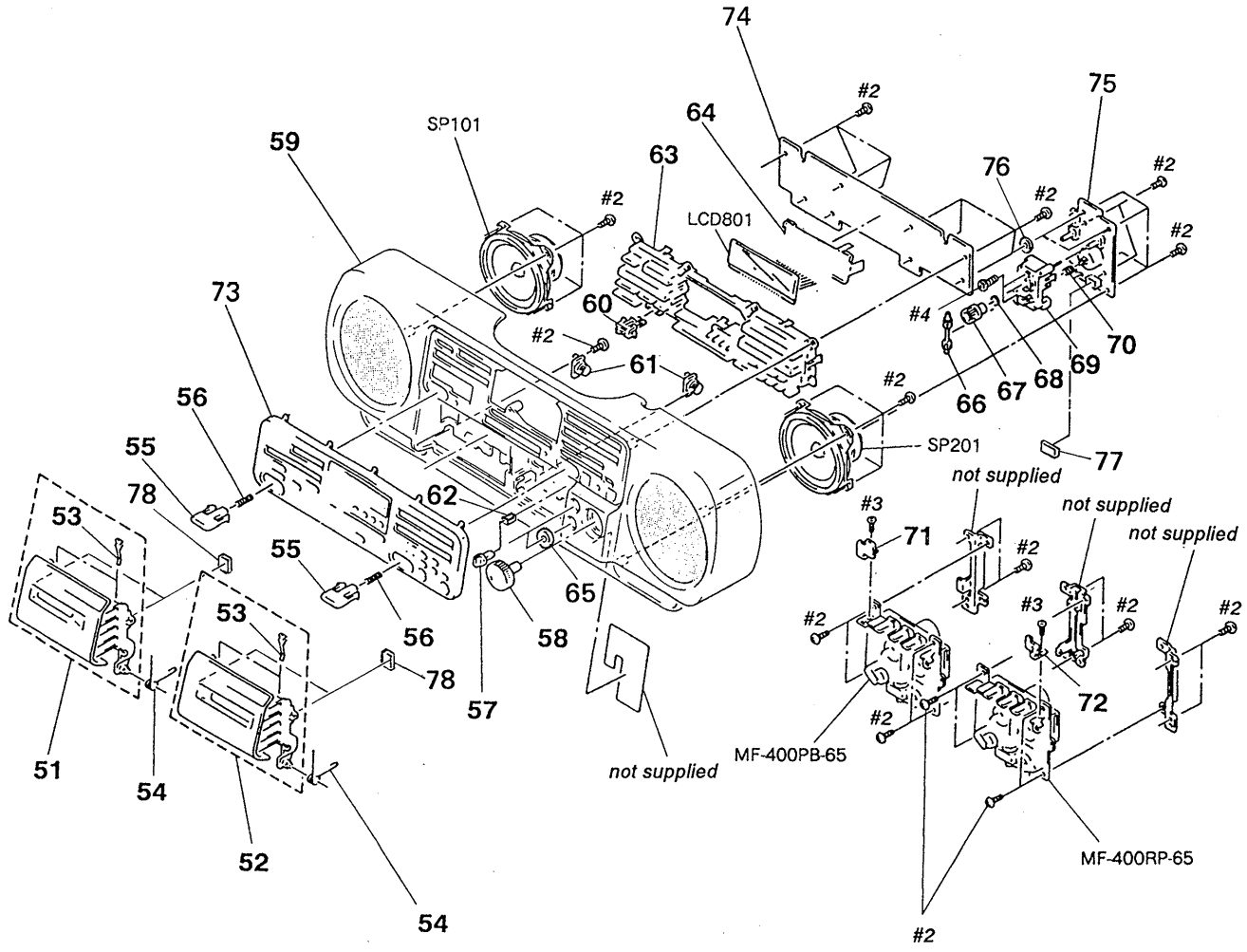
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(1) REAR CABINET SECTION



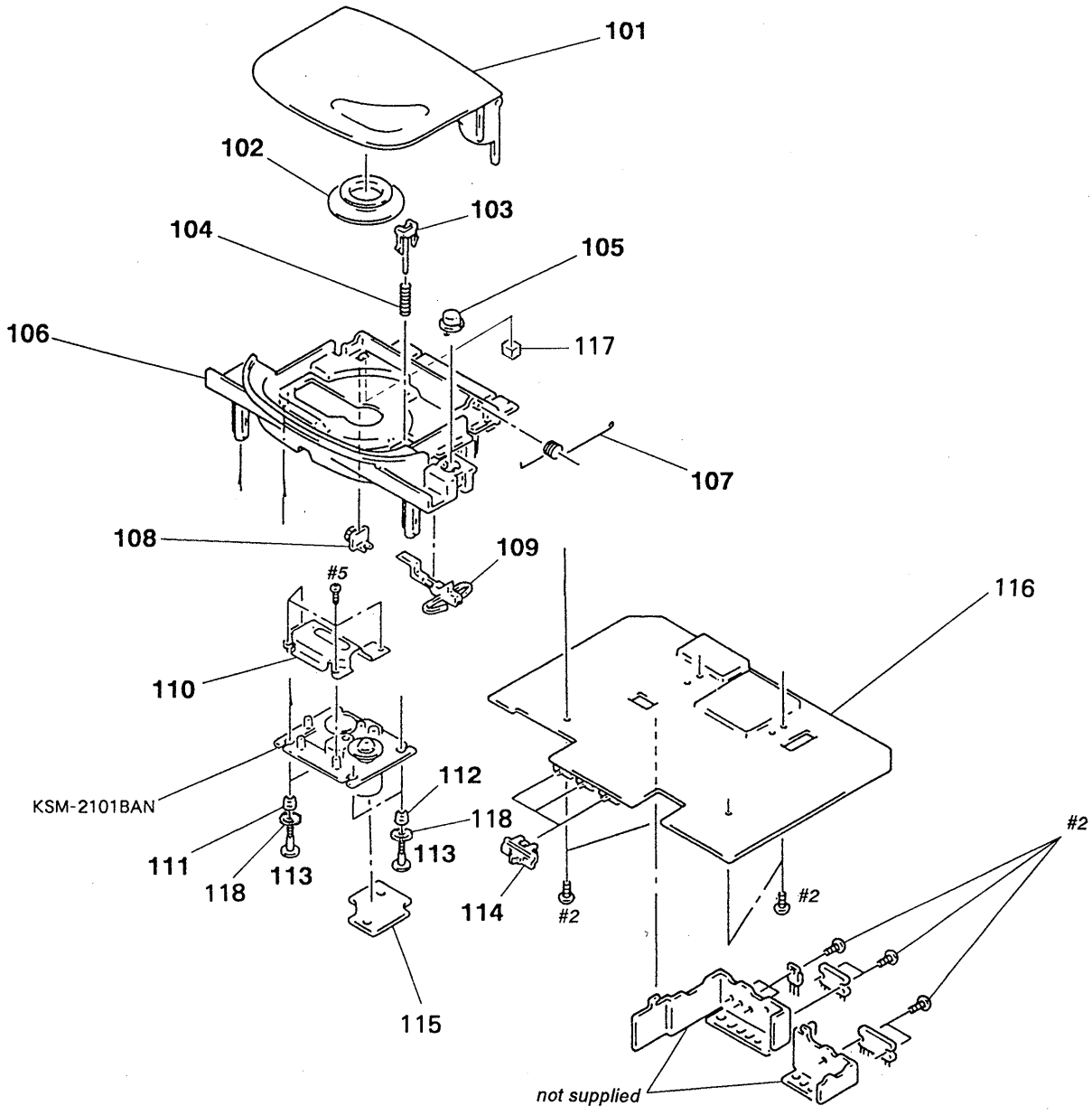
Ref. No.	Part No.	Description	Remark
1	* 3-364-116-01	BRACKET (POWER)	
2	3-362-689-01	SPRING (-)	
3	3-362-688-01	SPRING (R6)	
4	3-362-712-51	CABINET (REAR)	
5	3-362-707-11	HANDLE	
6	3-362-690-01	SPRING (COM)	
7	3-362-691-01	SPRING (R6 COM)	
8	* 3-362-669-01	TERMINAL BOARD, ANTENNA	
9	3-362-704-11	LID, BATTERY CASE	
10	3-325-679-71	SCREW, TAPPING +BV 3X12	
11	4-926-715-01	SCREW (3X62), TAPPING	
12	* 1-636-846-21	POWER BOARD	
13	* 1-636-847-21	TRANSFORMER BOARD	
14	1-553-217-31	HOLDER, FUSE	
15	* 1-639-014-11	VOLTAGE SELECTOR BOARD	
16	3-366-560-01	FOOT	
ANT1	1-501-378-11	ANTENNA, TELESCOPIC	
F901 ⚠·	1-532-504-51	FUSE T4A 125V (JE)	
F901 ⚠·	1-532-350-00	FUSE T4A 250V (E)	
F902 ⚠·	1-532-389-51	FUSE T500mA 250V (JE)	
F902 ⚠·	1-532-389-51	FUSE T500mA 250V (E)	
F903 ⚠·	1-532-389-51	FUSE T500mA 250V (JE)	
F903 ⚠·	1-532-389-51	FUSE T500mA 250V (E)	
T901 ⚠·	1-450-504-11	TRANSFORMER, POWER	

(2) FRONT CABINET SECTION



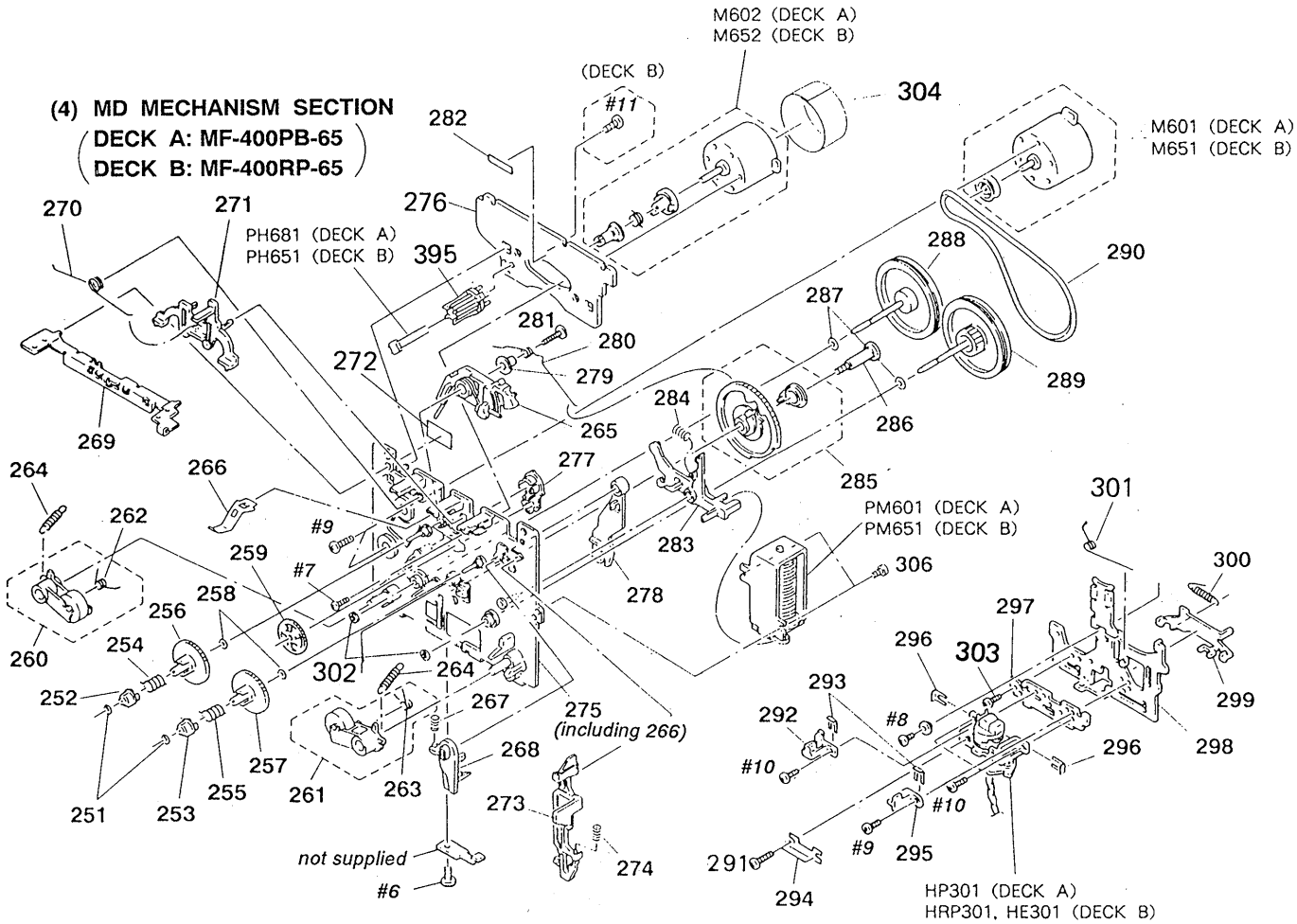
Ref. No.	Part No.	Description	Remark
51	X-3362-082-1	LID (A) ASSY, CASSETTE	
52	X-3362-083-1	LID (B) ASSY, CASSETTE	
53	3-308-823-11	SPRING	
54	3-362-686-01	SPRING, CASSETTE UP	
55	3-362-699-01	BUTTON (MD EJECT)	
56	3-618-108-03	SPRING	
57	3-362-682-01	KNOB (TONE)	
58	3-362-700-11	KNOB (VOL)	
59	X-3362-946-1	CABINET (FRONT) ASSY	
60	3-362-671-01	KNOB (TM)	
61	3-351-377-11	DAMPER	
62	2-532-810-00	CUSHION, 15X5X0.3	
63	3-362-713-01	CHASSIS (BUTTON)	
64	3-362-701-01	HOLDER, LCD	
65	3-366-545-01	WASHER (B)	
66	* 4-938-205-01	GEAR, COMMUNICATION	
67	* 4-938-208-01	WHEEL (VR), WORM	
68	4-938-264-01	SPRING, RING	
69	3-362-702-01	CHASSIS (VOL)	
70	4-938-204-01	GEAR, WORM	
71	* 3-362-676-01	LEVER (A), EJECT	
72	* 3-362-677-01	LEVER (B), EJECT	
73	X-3362-944-1	PANEL ASSY, CONTROL	
74	* A-3261-584-A	CONTROL BOARD, COMPLETE	
75	* A-3261-577-A	VOL BOARD, COMPLETE	
76	3-555-872-00	SPACER	
77	* 4-923-383-01	SHEET (B)	
78	4-926-710-01	CUSHION (BATT)	
LCD801	1-809-387-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP101	1-544-488-11	SPEAKER	
SP201	1-544-488-11	SPEAKER	

(3) CD BLOCK SECTION



Ref. No.	Part No.	Description	Remark
101	X-3362-945-1	LID ASSY, CD	
102	X-3362-086-1	PLATE ASSY, CHUCKING	
103	3-362-685-01	LEVER, OPEN	
104	3-366-624-01	SPRING (1), COMPRESSION	
105	3-362-680-01	BUTTON, CD	
106	* 3-362-706-11	CHASSIS, CD	
107	3-362-687-01	SPRING (CD), UP	
108	3-351-377-11	DAMPER	
109	3-362-684-01	LEVER, LOCK	
110	* 4-928-936-01	COVER, CD	
111	4-922-858-11	DAMPER	
112	4-922-858-01	DAMPER	
113	4-931-373-01	SCREW, CD FITTING	
114	3-362-683-01	KNOB (DO)	
115	* 1-636-845-21	CD MOTOR BOARD	
116	* A-3275-013-A	MAIN BOARD, COMPLETE	
117	3-368-866-01	CHSHION (CDB)	
118	3-366-551-01	WASHER (C)	

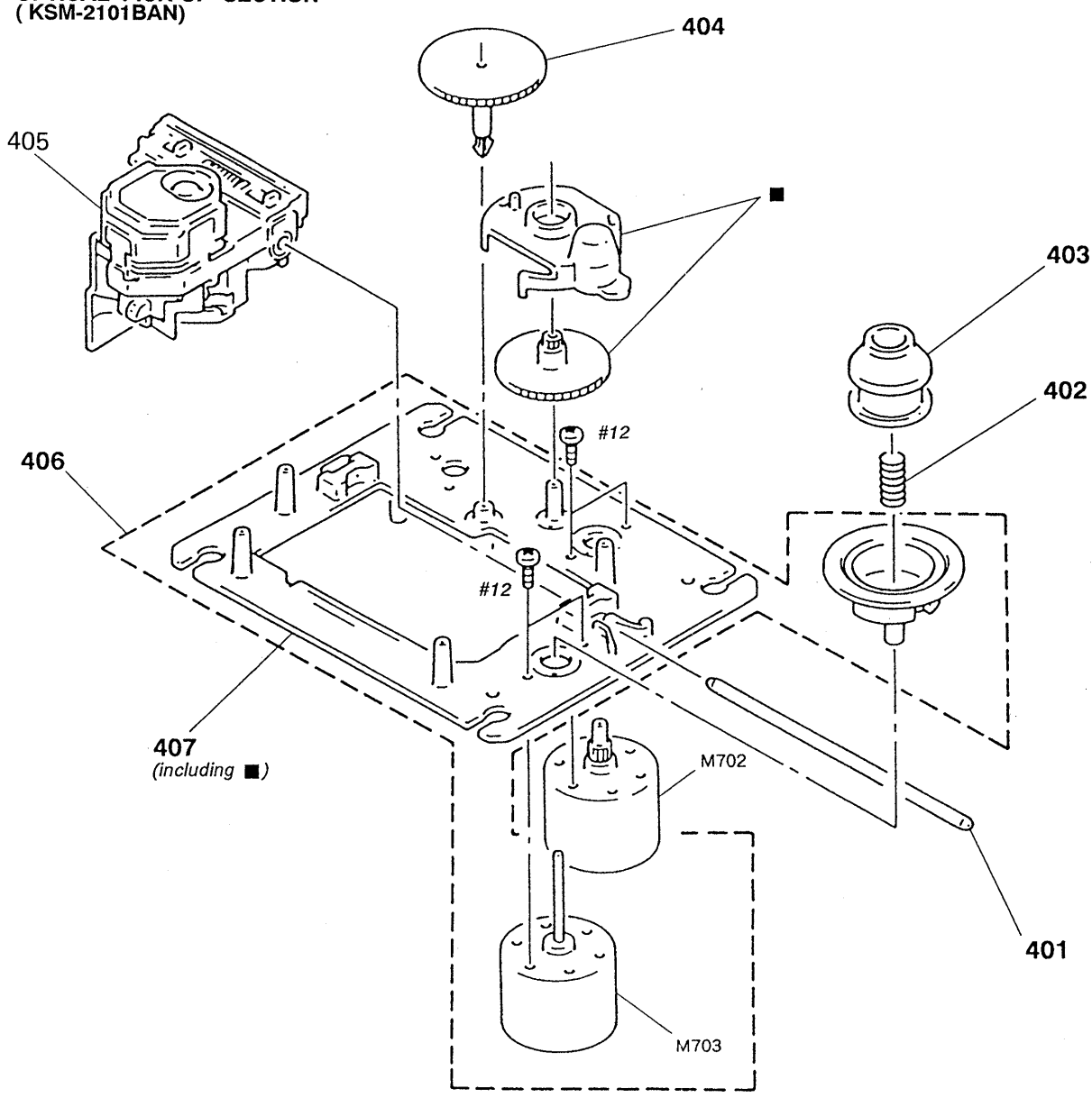
(4) MD MECHANISM SECTION
(DECK A: MF-400PB-65
DECK B: MF-400RP-65)



Ref. No.	Part No.	Description	Remark
251	3-578-223-21	WASHER, NYLON	
252	3-362-481-01	CLAW (S), REEL	
253	3-362-480-01	CLAW (T), REEL	
254	3-362-831-02	SPRING (RS), TORSION	
255	3-362-830-02	SPRING (RT), TORSION	
256	A-3130-037-A	GEAR (REEL) ASSY	
257	3-362-482-01	GEAR (REEL)	
258	3-701-437-51	WASHER	
259	3-362-483-01	GEAR (DRIVING A)	
260	X-3306-509-1	LEVER (R) ASSY, P	
261	X-3306-508-1	LEVER (N) ASSY, PC	
262	3-360-316-01	SPRING (R), TORSION	
263	3-360-315-01	SPRING (N), TORSION	
264	4-602-490-00	SPRING, TENSION	
265	X-3306-511-1	LINK (LIMITER) ASSY	
266	3-360-328-01	PLATE, CASSETTE	
267	3-360-336-01	SPRING, COMPRESSION	
268	3-360-324-01	LEVER, AMS	
269	3-360-312-01	PLATE, SW RETURN	
270	3-360-310-01	SPRING (BRAKE), TORSION	
271	3-360-348-01	BRAKE	
272	3-831-441-XX	SPACER	
273	3-360-307-01	SLIDER (EJECT)	
274	3-363-790-01	SPRING, COMPRESSION	
275	X-3306-546-1	CHASSIS (M) ASSY	
276	* 1-635-162-11	TRASLATION (B) BOARD (DECK B)	
276	* 1-635-163-11	TRASLATION (A) BOARD (DECK A)	
277	3-306-599-01	ARM, DRIVING	
278	3-360-306-01	LEVER, N	
279	3-363-146-01	SLEEVE, SPRING RETAINER	
280	3-360-337-05	SPRING (CAM), TORSION	
281	3-344-728-01	SCREW (B1.4), TAPPING	
282	9-911-844-XX	CUSHION (RM)	
283	3-360-304-01	LEVER, PL	
284	3-344-751-01	SPRING, COMPRESSION	
285	X-3362-641-1	GEAR ASSY, CAM	
286	3-364-608-01	SCREW (M2.6X11.6X3.5), STEP	

Ref. No.	Part No.	Description	Remark
287	3-701-437-11	WASHER	
288	X-3306-513-1	FLYWHEEL (R) ASSY	
289	X-3306-512-1	FLYWHEEL (N) ASSY	
290	3-360-327-01	BELT	
291	3-344-788-01	SCREW, AZIMUTH ADJUSTMENT	
292	3-319-287-01	GUIDE, TAPE	
293	4-932-603-01	SHIM (t=0.1)	
293	4-932-603-11	SHIM (t=0.2)	
294	4-930-440-01	SPRING	
295	4-930-438-01	GUIDE, TAPE	
296	3-336-274-01	SHIM (t=0.1)	
296	3-336-274-11	SHIM (t=0.2)	
296	3-336-274-21	SHIM (t=0.3)	
297	3-362-786-11	PLATE, SPACE	
298	* X-3362-100-2	BASE ASSY, HEAD	
299	* X-3362-073-2	SLIDER (NR2) ASSY	
300	3-363-432-01	SPRING, TENSION	
301	3-360-321-01	SPRING, TORSION	
302	3-343-358-12	RING, RETAINING	
303	3-363-433-02	SCREW	
304	* 3-162-496-01	CORE, SHIELD	
305	3-360-345-01	HOLDER (PHOTO)	
HP301	A-3208-357-A	HEAD ASSY, ROTARY (DECK A)	
HRP301, HE301	A-3208-354-A	HEAD ASSY, ROTARY (DECK B)	
M601	A-3133-405-A	MOTOR ASSY, CAPSTAN (DECK A)	
M602	A-3208-404-A	MOTOR ASSY, REEL (DECK A)	
M651	A-3133-405-A	MOTOR ASSY, CAPSTAN (DECK B)	
M652	A-3208-404-A	MOTOR ASSY, REEL (DECK B)	
PM601	1-454-533-11	SOLENOID, PLUNGER (DECK A)	
PM651	1-454-533-11	SOLENOID, PLUNGER (DECK B)	

(5) OPTICAL PICK-UP SECTION (KSM-2101BAN)



Ref. No.	Part No.	Description	Remark
401	4-917-565-01	SHAFT, SLED	
402	2-625-191-01	SPRING, COMPRESSION	
403	2-625-186-01	RING (C), CENTER	
404	2-625-188-02	GEAR (A)	
405 ⚠	8-848-137-11	DEVICE, OPTICAL KSS-210B	
406	X-2625-133-1	CHASSIS ASSY, TT (M703, SPINDLE)	
407	2-625-195-03	CHASSIS, MAIN, OUTSERT	
M702	X-2625-132-1	GEAR ASSY, MOTOR (SLED)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 8
ELECTRICAL PARTS LIST CD MOTOR CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When including parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remark
	1-636-845-21	CD MOTOR BOARD			
		**********			
		< JUMPER >			
JW701	* 1-535-303-00	WIRE, JUMPER			
JW702	* 1-535-303-00	WIRE, JUMPER			
JW703	* 1-535-303-00	WIRE, JUMPER			
JW704	* 1-535-303-00	WIRE, JUMPER			
JW705	* 1-535-303-00	WIRE, JUMPER			
		< SWITCH >			
S703	1-571-936-11	SWITCH, LEAF (LIMIT)			
		< CONNECTOR >			
W703	* 1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			
**********					
	* A-3261-584-A	CONTROL BOARD, COMPLETE			
		**********			
	3-362-701-01	HOLDER, LCD			
		< CAPACITOR >			
C802	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C803	1-124-907-11	ELECT	10uF	20%	50V
C806	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C807	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C808	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C809	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C810	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C811	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C812	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C813	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C814	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C815	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C816	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C817	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C818	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C819	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C820	1-124-442-00	ELECT	330uF	20%	6.3V
		< CONNECTOR >			
CN801	1-580-368-11	HOUSING, CONNECTOR (PC BOARD)			12P
CN802	1-580-368-11	HOUSING, CONNECTOR (PC BOARD)			12P
CN803	1-580-368-11	HOUSING, CONNECTOR (PC BOARD)			12P
		< DIODE >			
D800	8-719-987-04	LED SLR-34VR70F-150			
D801	8-719-911-19	DIODE 1SS119			
D802	8-719-911-19	DIODE 1SS119			
D803	8-719-911-19	DIODE 1SS119			
D804	8-719-911-19	DIODE 1SS119			
D805	8-719-911-19	DIODE 1SS119			
D806	8-719-911-19	DIODE 1SS119			
		< IC >			
IC801	8-752-830-08	IC CXP50716-009Q			
IC802	8-759-508-53	IC PST572J			
IC803	8-759-925-76	IC SN74HC08ANS			
IC804	8-759-925-76	IC SN74HC08ANS			
IC805	8-749-920-83	IC GP1U52XB			
		< JUMPER >			
JR800	1-216-295-00	METAL CHIP	0	5%	1/10W
JR801	1-216-295-00	METAL CHIP	0	5%	1/10W
JR802	1-216-295-00	METAL CHIP	0	5%	1/10W
JR803	1-216-295-00	METAL CHIP	0	5%	1/10W

CONTROL

Ref. No.	Part No.	Description			Remark
JR804	1-216-296-00	METAL CHIP	0	5%	1/8W
JR805	1-216-296-00	METAL CHIP	0	5%	1/8W
JR806	1-216-296-00	METAL CHIP	0	5%	1/8W
JR807	1-216-296-00	METAL CHIP	0	5%	1/8W
		< COIL >			
L801	1-410-977-11	INDUCTOR	100uH		
L802	1-410-971-11	INDUCTOR	10uH		
L803	1-410-336-11	INDUCTOR	220uH		
L804	1-410-336-11	INDUCTOR	220uH		
L805	1-410-336-11	INDUCTOR	220uH		
L806	1-410-336-11	INDUCTOR	220uH		
L807	1-410-336-11	INDUCTOR	220uH		
L808	1-410-336-11	INDUCTOR	220uH		
		< TRANSISTOR >			
Q801	8-729-920-31	TRANSISTOR DTC343TK			
Q802	8-729-920-31	TRANSISTOR DTC343TK			
Q803	8-729-920-31	TRANSISTOR DTC343TK			
Q804	8-729-230-69	TRANSISTOR 2SA1362G			
Q805	8-729-230-69	TRANSISTOR 2SA1362G			
		< RESISTOR >			
R801	1-216-025-00	METAL CHIP	100	5%	1/10W
R802	1-216-089-00	METAL CHIP	47K	5%	1/10W
R803	1-216-091-00	METAL CHIP	56K	5%	1/10W
R804	1-216-091-00	METAL CHIP	56K	5%	1/10W
R805	1-216-091-00	METAL CHIP	56K	5%	1/10W
R806	1-216-097-00	METAL CHIP	100K	5%	1/10W
R807	1-216-113-00	METAL CHIP	470K	5%	1/10W
R808	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R809	1-216-073-00	METAL CHIP	10K	5%	1/10W
R810	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R811	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R812	1-216-097-00	METAL CHIP	100K	5%	1/10W
R813	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R814	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R815	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R816	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R817	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R818	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R819	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R820	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R821	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R822	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R823	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R824	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R825	1-216-051-00	METAL CHIP	1.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R826	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R827	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R828	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R829	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R830	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R831	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R832	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R834	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R835	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R836	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R837	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R838	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R839	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R840	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R841	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R842	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R844	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R845	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R846	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R847	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R848	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R849	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R850	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R851	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R852	1-216-077-00	METAL CHIP	15K	5%	1/10W
R853	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R854	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R855	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R856	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R857	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R858	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R859	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R860	1-216-073-00	METAL CHIP	10K	5%	1/10W
R861	1-216-073-00	METAL CHIP	10K	5%	1/10W
R862	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R863	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R864	1-216-073-00	METAL CHIP	10K	5%	1/10W
R865	1-216-073-00	METAL CHIP	10K	5%	1/10W
R866	1-216-073-00	METAL CHIP	10K	5%	1/10W
R867	1-216-073-00	METAL CHIP	10K	5%	1/10W
R868	1-216-073-00	METAL CHIP	10K	5%	1/10W
R869	1-216-073-00	METAL CHIP	10K	5%	1/10W
R870	1-216-073-00	METAL CHIP	10K	5%	1/10W
R871	1-216-073-00	METAL CHIP	10K	5%	1/10W
R872	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R873	1-216-073-00	METAL CHIP	10K	5%	1/10W
R874	1-216-073-00	METAL CHIP	10K	5%	1/10W
R875	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R876	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R877	1-216-073-00	METAL CHIP	10K	5%	1/10W
R878	1-216-073-00	METAL CHIP	10K	5%	1/10W
R879	1-216-073-00	METAL CHIP	10K	5%	1/10W
R880	1-216-073-00	METAL CHIP	10K	5%	1/10W
R881	1-216-081-00	METAL CHIP	22K	5%	1/10W
R882	1-216-081-00	METAL CHIP	22K	5%	1/10W
R883	1-216-113-00	METAL CHIP	470K	5%	1/10W
R884	1-216-073-00	METAL CHIP	10K	5%	1/10W
R885	1-216-200-00	METAL GLAZE	1.2K	5%	1/8W
R886	1-216-113-00	METAL CHIP	470K	5%	1/10W

< SWITCH >

S800	1-572-347-11	SWITCH, SLIDE (TIMER MODE)	
S801	1-572-445-11	SWITCH, KEY BOARD (CD STOP)	
S802	1-572-445-11	SWITCH, KEY BOARD (CD PLAY)	
S803	1-572-445-11	SWITCH, KEY BOARD (CD PAUSE)	
S806	1-572-445-11	SWITCH, KEY BOARD (MEMORY)	
S807	1-572-445-11	SWITCH, KEY BOARD (TUNING +)	
S808	1-572-445-11	SWITCH, KEY BOARD (TUNING -)	
S809	1-572-445-11	SWITCH, KEY BOARD (BAND)	
S810	1-572-445-11	SWITCH, KEY BOARD (NORMAL)	
S811	1-572-445-11	SWITCH, KEY BOARD (HIGH)	
S812	1-572-445-11	SWITCH, KEY BOARD (EDIT)	
S813	1-572-445-11	SWITCH, KEY BOARD (AUTO SPACE)	
S814	1-572-445-11	SWITCH, KEY BOARD (REPEAT)	
S815	1-572-445-11	SWITCH, KEY BOARD (SHUFFLE)	
S816	1-572-445-11	SWITCH, KEY BOARD (STOP)	
S817	1-572-445-11	SWITCH, KEY BOARD (PLAY)	
S818	1-572-445-11	SWITCH, KEY BOARD (REV)	
S819	1-572-445-11	SWITCH, KEY BOARD (REC)	
S820	1-572-445-11	SWITCH, KEY BOARD (A/B)	
S821	1-572-445-11	SWITCH, KEY BOARD (+10 AM/PM)	
S822	1-572-445-11	SWITCH, KEY BOARD (CD AMS FWD)	
S823	1-572-445-11	SWITCH, KEY BOARD (FF)	
S824	1-572-445-11	SWITCH, KEY BOARD (REV)	
S825	1-572-445-11	SWITCH, KEY BOARD (PAUSE)	
S826	1-572-445-11	SWITCH, KEY BOARD (1)	
S827	1-572-445-11	SWITCH, KEY BOARD (2)	
S828	1-572-445-11	SWITCH, KEY BOARD (3)	
S829	1-572-445-11	SWITCH, KEY BOARD (4)	
S830	1-572-445-11	SWITCH, KEY BOARD (5)	
S831	1-572-445-11	SWITCH, KEY BOARD (6)	
S832	1-572-445-11	SWITCH, KEY BOARD (7)	
S833	1-572-445-11	SWITCH, KEY BOARD (8)	
S834	1-572-445-11	SWITCH, KEY BOARD (9)	
S835	1-572-445-11	SWITCH, KEY BOARD (0)	
S836	1-572-445-11	SWITCH, KEY BOARD (CLOSK)	
S837	1-572-445-11	SWITCH, KEY BOARD (SLEEP)	
S838	1-572-445-11	SWITCH, KEY BOARD (TIMER)	
S839	1-572-445-11	SWITCH, KEY BOARD (STANDBY)	
S840	1-572-445-11	SWITCH, KEY BOARD (DISPLAY)	
S841	1-572-445-11	SWITCH, KEY BOARD (POWER)	
S842	1-572-445-11	SWITCH, KEY BOARD (TAPE)	
S843	1-572-445-11	SWITCH, KEY BOARD (RADIO)	
S844	1-572-445-11	SWITCH, KEY BOARD (CD)	
S845	1-572-445-11	SWITCH, KEY BOARD (CD AMS REW)	
S846	1-572-445-11	SWITCH, KEY BOARD (DIR MODE)	

< CRYSTAL >

X801	1-579-239-41	VIBRATOR, CERAMIC 4.19MHz
X802	1-567-098-00	CRYSTAL 32.768kHz

****

* A-3275-013-A MAIN BOARD, COMPLETE
****

7-685-647-79 SCREW +BVTP 3X10 TYPE2 IT-3

< CAPACITOR >

C3	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C4	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V
C10	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C11	1-124-903-11	ELECT	1uF	20%	50V
C12	1-124-126-00	ELECT	47uF	20%	10V
C13	1-163-833-00	CERAMIC CHIP	0.068uF		25V
C14	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V
C15	1-161-059-00	CERAMIC	0.047uF	10%	50V
C16	1-161-059-00	CERAMIC	0.047uF	10%	50V
C17	1-124-903-11	ELECT	1uF	20%	50V
C18	1-124-903-11	ELECT	1uF	20%	50V
C19	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C20	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C21	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C22	1-124-907-11	ELECT	10uF	20%	50V
C23	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C24	1-124-907-11	ELECT	10uF	20%	50V
C25	1-124-903-11	ELECT	1uF	20%	50V
C26	1-163-134-00	CERAMIC CHIP	510PF	5%	50V
C27	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C28	1-136-175-00	FILM	0.68uF	5%	50V
C29	1-163-157-00	FILM	0.022uF	5%	50V

MAIN

Ref.No.	Part No.	Description			Remark
C37	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C38	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C39	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C49	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C50	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C52	1-124-604-00	ELECT	330uF	20%	10V
C53	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C54	1-136-171-00	FILM	0.033uF	5%	50V
C55	1-136-165-00	FILM	0.1uF	5%	50V
C56	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C57	1-124-907-11	ELECT	10uF	20%	50V
C58	1-126-157-11	ELECT	10uF	20%	16V
C59	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C66	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C67	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C68	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C69	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C71	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C72	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C73	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C74	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C101	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C102	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C103	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C106	1-124-126-00	ELECT	47uF	20%	10V
C107	1-130-483-00	MYLAR	0.01uF	5%	50V
C108	1-124-925-11	ELECT	2.2uF	20%	100V
C110	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C111	1-124-903-11	ELECT	1uF	20%	50V
C112	1-124-927-11	ELECT	4.7uF	20%	100V
C113	1-124-927-11	ELECT	4.7uF	20%	100V
C114	1-124-903-11	ELECT	1uF	20%	50V
C115	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C116	1-124-443-00	ELECT	100uF	20%	10V
C121	1-124-903-11	ELECT	1uF	20%	50V
C122	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C123	1-124-903-11	ELECT	1uF	20%	50V
C124	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C125	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C126	1-163-124-00	CERAMIC CHIP	200PF	5%	50V
C127	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C133	1-124-903-11	ELECT	1uF	20%	50V
C181	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C191	1-124-927-11	ELECT	4.7uF	20%	100V
C192	1-124-443-00	ELECT	100uF	20%	10V
C193	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C194	1-124-443-00	ELECT	100uF	20%	10V
C195	1-136-171-00	FILM	0.033uF	20%	50V
C196	1-124-443-00	ELECT	100uF	20%	10V
C197	1-136-171-00	FILM	0.033uF	5%	50V
C198	1-126-233-11	ELECT	22uF	20%	50V
C199	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C202	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C203	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C206	1-124-126-00	ELECT	47uF	20%	10V
C207	1-130-483-00	MYLAR	0.01uF	5%	50V
C208	1-124-925-11	ELECT	2.2uF	20%	100V
C210	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C211	1-124-903-11	ELECT	1uF	20%	50V
C212	1-124-927-11	ELECT	4.7uF	20%	100V
C213	1-124-927-11	ELECT	4.7uF	20%	100V
C214	1-124-903-11	ELECT	1uF	20%	50V
C215	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C216	1-124-443-00	ELECT	100uF	20%	10V
C221	1-124-903-11	ELECT	1uF	20%	50V
C222	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C223	1-124-903-11	ELECT	1uF	20%	50V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C225	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C226	1-163-124-00	CERAMIC CHIP	200PF	5%	50V
C227	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C233	1-124-903-11	ELECT	1uF	20%	50V
C281	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C291	1-124-927-11	ELECT	4.7uF	20%	100V
C292	1-124-443-00	ELECT	100uF	20%	10V
C293	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C294	1-124-443-00	ELECT	100uF	20%	10V
C295	1-136-171-00	FILM	0.033uF	5%	50V
C296	1-124-443-00	ELECT	100uF	20%	10V
C297	1-136-171-00	FILM	0.033uF	5%	50V
C298	1-126-233-11	ELECT	22uF	20%	50V
C299	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-124-443-00	ELECT	100uF	20%	10V
C302	1-124-126-00	ELECT	47uF	20%	10V
C303	1-124-927-11	ELECT	4.7uF	20%	100V
C304	1-124-443-00	ELECT	100uF	20%	10V
C305	1-124-443-00	ELECT	100uF	20%	10V
C306	1-124-927-11	ELECT	4.7uF	20%	50V
C307	1-124-903-11	ELECT	1uF	20%	50V
C311	1-124-443-00	ELECT	100uF	20%	10V
C312	1-124-126-00	ELECT	47uF	20%	10V
C313	1-124-443-00	ELECT	100uF	20%	10V
C314	1-126-176-11	ELECT	220uF	20%	10V
C315	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V

Ref. No.	Part No.	Description			Remark
C316	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C317	1-124-927-11	ELECT	4.7uF	20%	100V
C318	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C319	1-124-927-11	ELECT	4.7uF	20%	100V
C320	1-124-443-00	ELECT	100uF	20%	10V
C321	1-124-907-11	ELECT	10uF	20%	50V
C322	1-124-907-11	ELECT	10uF	20%	50V
C324	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C325	1-124-443-00	ELECT	100uF	20%	10V
C326	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C328	1-130-848-00	FILM	0.0082uF	5%	100V
C329	1-130-467-00	MYLAR	470PF	5%	50V
C330	1-130-471-00	MYLAR	0.001uF	5%	50V
C331	1-124-443-00	ELECT	100uF	20%	10V
C334	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C335	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C336	1-124-443-00	ELECT	100uF	20%	10V
C337	1-124-126-00	ELECT	47uF	20%	10V
C338	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C339	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C391	1-124-443-00	ELECT	100uF	20%	10V
C392	1-124-126-00	ELECT	47uF	20%	10V
C393	1-124-480-11	ELECT	470uF	20%	25V
C394	1-124-126-00	ELECT	47uF	20%	10V
C395	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C396	1-124-478-11	ELECT	100uF	20%	25V
C397	1-124-477-11	ELECT	47uF	20%	25V
C501	1-124-126-00	ELECT	47uF	20%	10V
C502	1-124-126-00	ELECT	47uF	20%	10V
C504	1-124-120-11	ELECT	220uF	20%	25V
C505	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C506	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C508	1-124-771-00	ELECT	6800uF	20%	25V
C509	1-124-907-11	ELECT	10uF	20%	50V
C510	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C511	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C512	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C513	1-124-473-11	ELECT	1000uF	20%	10V
C514	1-124-472-11	ELECT	470uF	20%	10V
C519	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C520	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C521	1-124-443-00	ELECT	100uF	20%	10V
C525	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C527	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C528	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C529	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C530	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C531	1-124-126-00	ELECT	47uF	20%	10V
C540	1-130-776-00	FILM	0.47uF	10%	63V

Ref. No.	Part No.	Description			Remark
C601	1-124-903-11	ELECT	1uF	20%	50V
C602	1-126-233-11	ELECT	22uF	20%	50V
C603	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C604	1-124-126-00	ELECT	47uF	20%	10V
C605	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C606	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C607	1-124-927-11	ELECT	4.7uF	20%	100V
C608	1-124-927-11	ELECT	4.7uF	20%	100V
C610	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C631	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C634	1-124-927-11	ELECT	4.7uF	20%	100V
C636	1-124-925-11	ELECT	2.2uF	20%	100V
C638	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C639	1-124-907-11	ELECT	10uF	20%	50V
C640	1-124-907-11	ELECT	10uF	20%	50V
C641	1-124-907-11	ELECT	10uF	20%	50V
C643	1-124-126-00	ELECT	47uF	20%	10V
C644	1-126-157-11	ELECT	10uF	20%	16V
C645	1-124-907-11	ELECT	10uF	20%	50V
C651	1-124-903-11	ELECT	1uF	20%	50V
C652	1-126-233-11	ELECT	22uF	20%	50V
C653	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C654	1-164-346-11	CERAMIC CHIP	1uF		16V
C655	1-164-346-11	CERAMIC CHIP	1uF		16V
C656	1-124-126-00	ELECT	47uF	20%	10V
C657	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C658	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C659	1-124-927-11	ELECT	4.7uF	20%	100V
C660	1-124-927-11	ELECT	4.7uF	20%	100V
C662	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C670	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C671	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C672	1-164-346-11	CERAMIC CHIP	1uF		16V
C673	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C674	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C675	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C676	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C677	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C701	1-124-443-00	ELECT	100uF	20%	10V
C702	1-124-034-51	ELECT	33uF	20%	16V
C703	1-124-034-51	ELECT	33uF	20%	16V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-136-165-00	FILM	0.1uF	5%	50V
C706	1-124-907-11	ELECT	10uF	20%	50V
C707	1-124-907-11	ELECT	10uF	20%	50V
C708	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C709	1-124-907-11	ELECT	10uF	20%	50V
C710	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C711	1-163-833-00	CERAMIC CHIP	0.068uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C712	1-124-126-00	ELECT	47uF	20%	10V
C713	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C714	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C715	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C716	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C717	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C718	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C719	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C720	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C721	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C722	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C723	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C724	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C725	1-136-165-00	FILM	0.1uF	5%	50V
C726	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C727	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C728	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C729	1-124-902-00	ELECT	0.47uF	20%	50V
C730	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C731	1-163-088-00	CERAMIC CHIP	5PF		50V
C732	1-163-088-00	CERAMIC CHIP	5PF		50V
C733	1-124-902-00	ELECT	0.47uF	20%	50V
C734	1-124-907-11	ELECT	10uF	20%	50V
C735	1-124-477-11	ELECT	47uF	20%	25V
C736	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C737	1-124-034-51	ELECT	33uF	20%	16V
C739	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C740	1-136-017-00	CERAMIC CHIP	0.0047uF		50V
C741	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C742	1-124-903-11	ELECT	1uF	20%	50V
C745	1-124-477-11	ELECT	47uF	20%	25V
C746	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C747	1-124-034-51	ELECT	33uF	20%	16V
C760	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C761	1-124-604-00	ELECT	330uF	20%	10V
C762	1-124-473-11	ELECT	1000uF	20%	10V
C763	1-162-851-11	CERAMIC	0.1uF	10%	16V
C764	1-136-017-00	CERAMIC CHIP	0.0047uF		50V
C765	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C766	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C768	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C769	1-124-443-00	ELECT	100uF	20%	10V
C770	1-124-126-00	ELECT	47uF	20%	10V
C771	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C772	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C773	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C774	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C775	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C776	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C777	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C778	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C909	1-124-480-11	ELECT	470uF	20%	25V
		< FILTER >			
CF1	1-578-781-11	FILTER, CERAMIC			
CF2	1-578-781-11	FILTER, CERAMIC			
CF3	1-578-781-11	FILTER, CERAMIC			
CF4	1-578-779-21	VIBLATOR, CERAMIC			
		< CONNECTOR >			
CN1	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN301	* 1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
CN302	* 1-506-990-11	PIN, CONNECTOR (PC BOARD) 8P			
CN303	* 1-580-369-11	PIN, CONNECTOR (PC BOARD) 12P			
CN304	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN305	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN351	1-580-368-11	HOUSING, CONNECTOR (PC BOARD) 12P			
CN501	* 1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
CN601	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN602	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN603	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN604	* 1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
CN605	* 1-560-456-00	PIN, CONNECTOR 2P			
CN701	* 1-569-750-11	PIN, CONNECTOR (PC BOARD) 8P			
CN702	* 1-569-750-21	PIN, CONNECTOR (PC BOARD) 8P			
CN703	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN804	* 1-580-369-11	PIN, CONNECTOR (PC BOARD) 12P			
CN805	* 1-580-369-11	PIN, CONNECTOR (PC BOARD) 12P			
CN806	* 1-580-369-11	PIN, CONNECTOR (PC BOARD) 12P			
		< TUNER UNIT >			
CP1	1-465-750-11	TUNER UNIT			
		< TRIMMER >			
CT1	1-141-227-00	CAP, TRIMMER 20PF			
		< DIODE >			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-987-04	LED SLR-34VR70F-150			
D4	8-719-911-19	DIODE 1SS119			
D6	8-719-911-19	DIODE 1SS119			
D8	8-719-911-19	DIODE 1SS119			
D9	8-719-980-73	DIODE SVC342LM-V			
D19	8-719-109-96	DIODE RD6.8ES-B1			
D20	8-719-911-19	DIODE 1SS119			
D21	8-719-911-19	DIODE 1SS119			

Ref. No.	Part No.	Description	Remark
D302	8-719-911-19	DIODE 1SS119	
D502	8-719-911-19	DIODE 1SS119	
D503	8-719-911-19	DIODE 1SS119	
D504	8-719-911-19	DIODE 1SS119	
D505	8-719-911-19	DIODE 1SS119	
D506	8-719-911-19	DIODE 1SS119	
D510	8-719-110-06	DIODE RD8.2ES-B1	
D512	8-719-110-13	DIODE RD9.1ES-B2	
D513	8-719-210-50	DIODE F5KQ30L	
D514	8-719-911-19	DIODE 1SS119	
D601	8-719-911-19	DIODE 1SS119	
D602	8-719-400-18	DIODE MA152WK	
D605	8-719-110-03	DIODE RD7.5ES-B2	
D606	8-719-109-50	DIODE RD2.0ES-B1	
D607	8-719-400-18	DIODE MA152WK	
D608	8-719-104-34	DIODE 1S2836	
D609	8-719-104-34	DIODE 1S2836	
D610	8-719-109-57	DIODE RD2.4ES-B2	
D611	8-719-400-18	DIODE MA152WK	
D630	8-719-104-34	DIODE 1S2836	
D651	8-719-911-19	DIODE 1SS119	
D652	8-719-400-18	DIODE MA152WK	
D655	8-719-110-03	DIODE RD7.5ES-B2	
D656	8-719-109-50	DIODE RD2.0ES-B1	
D659	8-719-104-34	DIODE 1S2836	
D660	8-719-109-57	DIODE RD2.4ES-B2	
D661	8-719-400-18	DIODE MA152WK	
D663	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
		< ENCAPSULATED >	
FL1	1-236-571-21	ENCAPSULATED COMPONENT	
		< IC >	
IC1	8-759-245-69	IC TA2012F	
IC3	8-759-242-90	IC TC9216P	
IC301	8-759-143-54	IC uPC1330HA	
IC302	8-752-053-17	IC CXA1114P	
IC303	8-759-945-58	IC RC4558P	
IC304	8-752-038-00	IC CXA1298AP	
IC305	8-759-822-51	IC LA4620	
IC306	8-759-803-05	IC LC4066BM	
IC307	8-759-803-05	IC LC4066BM	
IC501	8-759-996-77	IC BA3924	
IC502	8-759-912-55	IC S-81250HG	
IC503	8-759-510-54	IC PST572D	
IC601	8-759-905-47	IC BA338	
IC602	8-759-822-09	IC LB1641	
IC603	8-757-991-00	IC CX7991	
IC604	8-752-815-96	IC CXP2001M	
IC605	8-759-926-26	IC SN74HC166NS	
IC606	8-759-822-09	IC LB1641	
IC607	8-759-505-48	IC S-80740AN	
IC608	8-759-510-54	IC PST572D	
IC701	8-752-053-69	IC CXA1571S	
IC702	8-752-050-82	IC CXA1372Q	
IC703	8-752-337-26	IC CXD2500AQ	
IC704	8-759-148-30	IC uPD6376GS	
IC705	8-759-503-98	IC SM5840DS	
IC706	8-759-822-66	IC LA6536M	
		< JACK >	
J301	1-568-122-11	JACK (MIX MIC)	
J302	1-566-891-11	JACK (PHONES)	
		< COIL >	
L3	1-402-501-11	ANTENNA, FERRITE-ROD (AM)	
L4	1-406-385-11	COIL (OSC)	
L6	1-410-977-11	INDUCTOR 100uH	
L8	1-410-971-11	INDUCTOR 10uH	
L11	1-410-977-11	INDUCTOR 100uH	
L103	1-410-776-11	INDUCTOR 12mH	
L203	1-410-776-11	INDUCTOR 12mH	
L301	1-408-426-00	INDUCTOR 270uH	
L601	1-410-977-11	INDUCTOR 100uH	
L602	1-410-977-11	INDUCTOR 100uH	
L603	1-410-977-11	INDUCTOR 100uH	
L604	1-408-080-00	INDUCTOR 100uH	
L605	1-408-080-00	INDUCTOR 100uH	
L606	1-408-080-00	INDUCTOR 100uH	
L607	1-408-080-00	INDUCTOR 100uH	
L701	1-410-971-11	INDUCTOR 10uH	
L702	1-410-977-11	INDUCTOR 100uH	
L703	1-410-971-11	INDUCTOR 10uH	
L704	1-412-010-41	INDUCTOR CHIP 22uH	
		< LINK >	
PS502	1-532-637-00	LINK, IC ICP-N25	
PS503	1-532-605-00	LINK, IC ICP-N20	
		< TRANSISTOR >	
Q3	8-729-900-52	TRANSISTOR DTC114YK	
Q4	8-729-200-86	TRANSISTOR 2SC2714-O	
Q5	8-729-920-31	TRANSISTOR DTC343TK	
Q6	8-729-900-51	TRANSISTOR DTA114TK	
Q19	8-729-900-52	TRANSISTOR DTC114YK	

MAIN

Ref. No.	Part No.	Description	Remark
Q20	8-729-923-73	TRANSISTOR DTA123YK	
Q22	8-729-801-93	TRANSISTOR 2SD1387-3	
Q23	8-729-904-63	TRANSISTOR DTB123YK	
Q25	8-729-900-51	TRANSISTOR DTA114TK	
Q26	8-729-900-51	TRANSISTOR DTA114TK	
Q31	8-729-900-52	TRANSISTOR DTC114YK	
Q32	8-729-901-79	TRANSISTOR 2SC2412K-S	
Q33	8-729-901-79	TRANSISTOR 2SC2412K-S	
Q101	8-729-920-31	TRANSISTOR DTC343TK	
Q104	8-729-900-98	TRANSISTOR DTC143TK	
Q105	8-729-920-31	TRANSISTOR DTC343TK	
Q106	8-729-902-XX	TRANSISTOR DTC114TK	
Q107	8-729-902-XX	TRANSISTOR DTC114TK	
Q108	8-729-902-XX	TRANSISTOR DTC114TK	
Q109	8-729-900-98	TRANSISTOR DTC143TK	
Q110	8-729-920-31	TRANSISTOR DTC343TK	
Q191	8-729-920-31	TRANSISTOR DTC343TK	
Q201	8-729-920-31	TRANSISTOR DTC343TK	
Q204	8-729-900-98	TRANSISTOR DTC143TK	
Q205	8-729-920-31	TRANSISTOR DTC343TK	
Q206	8-729-902-XX	TRANSISTOR DTC114TK	
Q207	8-729-902-XX	TRANSISTOR DTC114TK	
Q208	8-729-902-XX	TRANSISTOR DTC114TK	
Q209	8-729-900-98	TRANSISTOR DTC143TK	
Q210	8-729-920-31	TRANSISTOR DTC343TK	
Q291	8-729-920-31	TRANSISTOR DTC343TK	
Q302	8-729-902-XX	TRANSISTOR DTC114TK	
Q306	8-729-801-84	TRANSISTOR 2SB1013-4	
Q307	8-729-902-XX	TRANSISTOR DTC114TK	
Q308	8-729-902-XX	TRANSISTOR DTC114TK	
Q309	8-729-902-XX	TRANSISTOR DTC114TK	
Q310	8-729-902-XX	TRANSISTOR DTC114TK	
Q312	8-729-920-31	TRANSISTOR DTC343TK	
Q313	8-729-800-34	TRANSISTOR 2SC3070	
Q314	8-729-920-31	TRANSISTOR DTC343TK	
Q315	8-729-901-79	TRANSISTOR 2SC2412K-S	
Q316	8-729-901-79	TRANSISTOR 2SC2412K-S	
Q317	8-729-805-94	TRANSISTOR 2SC4047	
Q318	8-729-184-52	TRANSISTOR 2SC1845-FA	
Q319	8-729-184-52	TRANSISTOR 2SC1845-FA	
Q327	8-729-920-31	TRANSISTOR DTC343TK	
Q328	8-729-920-31	TRANSISTOR DTC343TK	
Q329	8-729-920-31	TRANSISTOR DTC343TK	
Q330	8-729-920-31	TRANSISTOR DTC343TK	
Q501	8-729-924-92	TRANSISTOR 2SB1370-E	
Q503	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q509	8-729-805-91	TRANSISTOR 2SA1563	
Q510	8-729-901-03	TRANSISTOR DTC144WK	
Q512	8-729-805-91	TRANSISTOR 2SA1563	
Q514	8-729-905-67	TRANSISTOR 2SD1944-K	
Q515	8-729-805-94	TRANSISTOR 2SC4047	
Q516	8-729-902-XX	TRANSISTOR DTC114TK	
Q517	8-729-805-91	TRANSISTOR 2SA1563	
Q601	8-729-202-56	TRANSISTOR 2SA950-Y	
Q602	8-729-902-XX	TRANSISTOR DTC114TK	
Q603	8-729-115-30	TRANSISTOR 2SK105A-30	
Q605	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q606	8-729-900-52	TRANSISTOR DTC114YK	
Q607	8-729-901-46	TRANSISTOR DTA114YK	
Q608	8-729-900-52	TRANSISTOR DTC114YK	
Q610	8-729-902-XX	TRANSISTOR DTC114TK	
Q611	8-729-900-53	TRANSISTOR DTC114EK	
Q612	8-729-801-82	TRANSISTOR 2SB1013-2	
Q613	8-729-902-XX	TRANSISTOR DTC114TK	
Q615	8-729-901-46	TRANSISTOR DTA114YK	
Q616	8-729-900-52	TRANSISTOR DTC114YK	
Q617	8-729-902-XX	TRANSISTOR DTC114TK	
Q618	8-729-900-52	TRANSISTOR DTC114YK	
Q619	8-729-900-52	TRANSISTOR DTC114YK	
Q651	8-729-202-56	TRANSISTOR 2SA950-Y	
Q652	8-729-902-XX	TRANSISTOR DTC114TK	
Q653	8-729-115-30	TRANSISTOR 2SK105A-30	
Q655	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q656	8-729-900-52	TRANSISTOR DTC114YK	
Q657	8-729-901-46	TRANSISTOR DTA114YK	
Q658	8-729-902-XX	TRANSISTOR DTC114TK	
Q660	8-729-902-XX	TRANSISTOR DTC114TK	
Q661	8-729-900-53	TRANSISTOR DTC114EK	
Q662	8-729-801-82	TRANSISTOR 2SB1013-2	
Q663	8-729-902-XX	TRANSISTOR DTC114TK	
Q664	8-729-900-52	TRANSISTOR DTC114YK	
Q665	8-729-901-46	TRANSISTOR DTA114YK	
Q666	8-729-900-52	TRANSISTOR DTC114YK	
Q667	8-729-902-XX	TRANSISTOR DTC114TK	
Q668	8-729-900-52	TRANSISTOR DTC114YK	
Q669	8-729-900-52	TRANSISTOR DTC114YK	
Q670	8-729-902-XX	TRANSISTOR DTC114TK	
Q671	8-729-902-XX	TRANSISTOR DTC114TK	
Q701	8-729-801-82	TRANSISTOR 2SB1013-2	
Q703	8-729-902-XX	TRANSISTOR DTC114TK	
Q704	8-729-901-46	TRANSISTOR DTA114YK	
Q705	8-729-202-56	TRANSISTOR 2SA950-Y	
Q706	8-729-900-52	TRANSISTOR DTC114YK	
Q731	8-729-902-XX	TRANSISTOR DTC114TK	
Q741	8-729-902-XX	TRANSISTOR DTC114TK	

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R1	1-216-097-00	METAL CHIP	100K	5%	1/10W
R2	1-216-037-00	METAL CHIP	330	5%	1/10W
R3	1-216-049-00	METAL CHIP	1K	5%	1/10W
R4	1-216-081-00	METAL CHIP	22K	5%	1/10W
R5	1-216-081-00	METAL CHIP	22K	5%	1/10W
R6	1-216-073-00	METAL CHIP	10K	5%	1/10W
R8	1-216-089-00	METAL CHIP	47K	5%	1/10W
R9	1-216-027-00	METAL CHIP	120	5%	1/10W
R10	1-216-089-00	METAL CHIP	47K	5%	1/10W
R11	1-216-077-00	METAL CHIP	15K	5%	1/10W
R12	1-216-073-00	METAL CHIP	10K	5%	1/10W
R13	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-089-00	METAL CHIP	47K	5%	1/10W
R22	1-216-037-00	METAL CHIP	330	5%	1/10W
R23	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R24	1-216-073-00	METAL CHIP	10K	5%	1/10W
R27	1-216-049-00	METAL CHIP	1K	5%	1/10W
R28	1-216-089-00	METAL CHIP	47K	5%	1/10W
R30	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R33	1-216-041-00	METAL CHIP	470	5%	1/10W
R40	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R41	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R42	1-216-021-00	METAL CHIP	68	5%	1/10W
R45	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R46	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R50	1-216-025-00	METAL CHIP	100	5%	1/10W
R101	1-216-049-00	METAL CHIP	1K	5%	1/10W
R102	1-216-049-00	METAL CHIP	1K	5%	1/10W
R105	1-216-027-00	METAL CHIP	120	5%	1/10W
R106	1-216-075-00	METAL CHIP	12K	5%	1/10W
R107	1-216-079-00	METAL CHIP	18K	5%	1/10W
R108	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R109	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R110	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R111	1-216-097-00	METAL CHIP	100K	5%	1/10W
R112	1-216-073-00	METAL CHIP	10K	5%	1/10W
R113	1-216-075-00	METAL CHIP	12K	5%	1/10W
R114	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R115	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-025-00	METAL CHIP	100	5%	1/10W
R117	1-216-073-00	METAL CHIP	10K	5%	1/10W
R118	1-216-093-00	METAL CHIP	68K	5%	1/10W
R119	1-216-073-00	METAL CHIP	10K	5%	1/10W
R120	1-216-748-11	METAL CHIP	39K	5%	1/10W
R122	1-216-085-00	METAL CHIP	33K	5%	1/10W
R124	1-216-083-00	METAL CHIP	27K	5%	1/10W
R125	1-216-085-00	METAL CHIP	33K	5%	1/10W
R126	1-216-089-00	METAL CHIP	47K	5%	1/10W
R127	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R128	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R129	1-216-075-00	METAL CHIP	12K	5%	1/10W
R130	1-216-081-00	METAL CHIP	22K	5%	1/10W
R140	1-216-083-00	METAL CHIP	27K	5%	1/10W
R191	1-216-049-00	METAL CHIP	1K	5%	1/10W
R192	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R193	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R194	1-216-041-00	METAL CHIP	470	5%	1/10W
R195	1-216-049-00	METAL CHIP	1K	5%	1/10W
R196	1-216-041-00	METAL CHIP	470	5%	1/10W
R201	1-216-049-00	METAL CHIP	1K	5%	1/10W
R202	1-216-049-00	METAL CHIP	1K	5%	1/10W
R205	1-216-027-00	METAL CHIP	120	5%	1/10W
R206	1-216-075-00	METAL CHIP	12K	5%	1/10W
R207	1-216-079-00	METAL CHIP	18K	5%	1/10W
R208	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R209	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R210	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R211	1-216-097-00	METAL CHIP	100K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-075-00	METAL CHIP	12K	5%	1/10W
R214	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R215	1-216-073-00	METAL CHIP	10K	5%	1/10W
R216	1-216-025-00	METAL CHIP	100	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-093-00	METAL CHIP	68K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-748-11	METAL CHIP	39K	5%	1/10W
R222	1-216-085-00	METAL CHIP	33K	5%	1/10W
R224	1-216-083-00	METAL CHIP	27K	5%	1/10W
R225	1-216-085-00	METAL CHIP	33K	5%	1/10W
R226	1-216-089-00	METAL CHIP	47K	5%	1/10W
R227	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R228	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R229	1-216-075-00	METAL CHIP	12K	5%	1/10W
R230	1-216-081-00	METAL CHIP	22K	5%	1/10W
R240	1-216-083-00	METAL CHIP	27K	5%	1/10W
R291	1-216-049-00	METAL CHIP	1K	5%	1/10W
R292	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R293	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R294	1-216-041-00	METAL CHIP	470	5%	1/10W
R295	1-216-049-00	METAL CHIP	1K	5%	1/10W
R296	1-216-041-00	METAL CHIP	470	5%	1/10W
R301	1-216-025-00	METAL CHIP	100	5%	1/10W
R302	1-216-069-00	METAL CHIP	6.8K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-249-405-11	CARBON	100	5%	1/4W
R306	1-216-097-00	METAL CHIP	100K	5%	1/10W
R307	1-216-049-00	METAL CHIP	1K	5%	1/10W
R308	1-216-091-00	METAL CHIP	56K	5%	1/10W
R314	1-249-405-11	CARBON	100	5%	1/4W
R315	1-216-049-00	METAL CHIP	1K	5%	1/10W
R316	1-216-049-00	METAL CHIP	1K	5%	1/10W
R318	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R319	1-249-405-11	CARBON	100	5%	1/4W
R320	1-216-025-00	METAL CHIP	100	5%	1/10W
R321	1-216-031-00	METAL CHIP	180	5%	1/10W
R322	1-216-073-00	METAL CHIP	10K	5%	1/10W
R323	1-216-085-00	METAL CHIP	33K	5%	1/10W
R324	1-216-073-00	METAL CHIP	10K	5%	1/10W
R325	1-216-093-00	METAL CHIP	68K	5%	1/10W
R326	1-216-093-00	METAL CHIP	68K	5%	1/10W
R327	1-214-912-00	METAL	91K	1%	1/2W
R328	1-216-089-00	METAL CHIP	47K	5%	1/10W
R329	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R330	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R331	1-216-073-00	METAL CHIP	10K	5%	1/10W
R332	1-216-025-00	METAL CHIP	100	5%	1/10W
R333	1-216-025-00	METAL CHIP	100	5%	1/10W
R334	1-216-079-00	METAL CHIP	18K	5%	1/10W
R335	1-216-011-00	METAL CHIP	27	5%	1/10W
R336	1-216-013-00	METAL CHIP	33	5%	1/10W
R337	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R338	1-216-089-00	METAL CHIP	47K	5%	1/10W
R339	1-216-073-00	METAL CHIP	10K	5%	1/10W
R340	1-216-073-00	METAL CHIP	10K	5%	1/10W
R341	1-216-073-00	METAL CHIP	10K	5%	1/10W
R344	1-216-073-00	METAL CHIP	10K	5%	1/10W
R345	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R346	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R347	1-216-073-00	METAL CHIP	10K	5%	1/10W
R391	1-216-073-00	METAL CHIP	10K	5%	1/10W
R501	1-216-089-00	METAL CHIP	47K	5%	1/10W
R502	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R503	1-216-040-00	METAL GLAZE	430	5%	1/10W
R504	1-249-414-11	CARBON	560	5%	1/4W
R505	1-216-073-00	METAL CHIP	10K	5%	1/10W
R508	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R509	1-214-912-00	METAL	91K	1%	1/2W
R511	1-249-414-11	CARBON	560	5%	1/4W
R514	1-216-071-00	METAL CHIP	8.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R520	1-216-079-00	METAL CHIP	18K	5%	1/10W
R521	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-216-097-00	METAL CHIP	100K	5%	1/10W
R602	1-216-049-00	METAL CHIP	1K	5%	1/10W
R603	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R604	1-216-097-00	METAL CHIP	100K	5%	1/10W
R605	1-216-097-00	METAL CHIP	100K	5%	1/10W
R606	1-216-041-00	METAL CHIP	470	5%	1/10W
R607	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R608	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R611	1-216-045-00	METAL CHIP	680	5%	1/10W
R612	1-216-043-00	METAL CHIP	560	5%	1/10W
R613	1-216-097-00	METAL CHIP	100K	5%	1/10W
R614	1-216-049-00	METAL CHIP	1K	5%	1/10W
R615	1-216-045-00	METAL CHIP	680	5%	1/10W
R616	1-216-097-00	METAL CHIP	100K	5%	1/10W
R617	1-216-097-00	METAL CHIP	100K	5%	1/10W
R619	1-216-081-00	METAL CHIP	22K	5%	1/10W
R620	1-216-073-00	METAL CHIP	10K	5%	1/10W
R621	1-216-073-00	METAL CHIP	10K	5%	1/10W
R622	1-216-041-00	METAL CHIP	470	5%	1/10W
R623	1-216-748-11	METAL CHIP	39K	5%	1/10W
R624	1-216-091-00	METAL CHIP	56K	5%	1/10W
R625	1-216-083-00	METAL CHIP	27K	5%	1/10W
R626	1-216-081-00	METAL CHIP	22K	5%	1/10W
R627	1-216-013-00	METAL CHIP	33	5%	1/10W
R629	1-216-073-00	METAL CHIP	10K	5%	1/10W
R630	1-216-097-00	METAL CHIP	100K	5%	1/10W
R631	1-216-025-00	METAL CHIP	100	5%	1/10W
R632	1-216-073-00	METAL CHIP	10K	5%	1/10W
R633	1-216-105-00	METEL CHIP	220K	5%	1/10W
R635	1-216-073-00	METAL CHIP	10K	5%	1/10W
R636	1-216-097-00	METAL CHIP	100K	5%	1/10W
R637	1-216-049-00	METAL CHIP	1K	5%	1/10W
R638	1-216-097-00	METAL CHIP	100K	5%	1/10W
R639	1-216-097-00	METAL CHIP	100K	5%	1/10W
R640	1-216-097-00	METAL CHIP	100K	5%	1/10W
R641	1-216-097-00	METAL CHIP	100K	5%	1/10W
R651	1-216-097-00	METAL CHIP	100K	5%	1/10W
R652	1-216-049-00	METAL CHIP	1K	5%	1/10W
R653	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R654	1-216-097-00	METAL CHIP	100K	5%	1/10W
R655	1-216-097-00	METAL CHIP	100K	5%	1/10W
R656	1-216-041-00	METAL CHIP	470	5%	1/10W
R657	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R658	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R661	1-216-045-00	METAL CHIP	680	5%	1/10W
R662	1-216-043-00	METAL CHIP	560	5%	1/10W
R663	1-216-097-00	METAL CHIP	100K	5%	1/10W

MAIN **POWER**

Ref. No.	Part No.	Description			Remark
R664	1-216-049-00	METAL CHIP	1K	5%	1/10W
R665	1-216-045-00	METAL CHIP	680	5%	1/10W
R666	1-216-097-00	METAL CHIP	100K	5%	1/10W
R667	1-216-097-00	METAL CHIP	100K	5%	1/10W
R669	1-216-081-00	METAL CHIP	22K	5%	1/10W
R670	1-216-073-00	METAL CHIP	10K	5%	1/10W
R671	1-216-073-00	METAL CHIP	10K	5%	1/10W
R672	1-216-041-00	METAL CHIP	470	5%	1/10W
R673	1-216-097-00	METAL CHIP	100K	5%	1/10W
R675	1-216-073-00	METAL CHIP	10K	5%	1/10W
R677	1-216-013-00	METAL CHIP	33	5%	1/10W
R678	1-216-097-00	METAL CHIP	100K	5%	1/10W
R679	1-216-025-00	METAL CHIP	100	5%	1/10W
R680	1-216-077-00	METAL CHIP	15K	5%	1/10W
R681	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R700	1-216-024-00	METAL GLAZE	91	5%	1/10W
R701	1-216-009-00	METAL CHIP	22	5%	1/10W
R702	1-216-081-00	METAL CHIP	22K	5%	1/10W
R703	1-216-081-00	METAL CHIP	22K	5%	1/10W
R704	1-216-049-00	METAL CHIP	1K	5%	1/10W
R705	1-216-097-00	METAL CHIP	100K	5%	1/10W
R706	1-216-091-00	METAL CHIP	56K	5%	1/10W
R707	1-216-097-00	METAL CHIP	100K	5%	1/10W
R708	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R709	1-216-089-00	METAL CHIP	47K	5%	1/10W
R710	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R711	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R712	1-216-105-00	METAL CHIP	220K	5%	1/10W
R713	1-216-073-00	METAL CHIP	10K	5%	1/10W
R714	1-216-049-00	METAL CHIP	1K	5%	1/10W
R715	1-216-105-00	METAL CHIP	220K	5%	1/10W
R716	1-216-073-00	METAL CHIP	10K	5%	1/10W
R717	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R718	1-216-099-00	METAL CHIP	120K	5%	1/10W
R719	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R720	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R721	1-216-101-00	METAL CHIP	150K	5%	1/10W
R722	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R723	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R724	1-216-049-00	METAL CHIP	1K	5%	1/10W
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-049-00	METAL CHIP	1K	5%	1/10W
R727	1-216-097-00	METAL CHIP	100K	5%	1/10W
R728	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R730	1-216-097-00	METAL CHIP	100K	5%	1/10W
R731	1-216-073-00	METAL CHIP	10K	5%	1/10W
R732	1-216-073-00	METAL CHIP	10K	5%	1/10W
R741	1-216-073-00	METAL CHIP	10K	5%	1/10W
R742	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R760	1-216-077-00	METAL CHIP	15K	5%	1/10W
R761	1-216-073-00	METAL CHIP	10K	5%	1/10W
R762	1-216-085-00	METAL CHIP	33K	5%	1/10W
R763	1-216-085-00	METAL CHIP	33K	5%	1/10W
R764	1-216-085-00	METAL CHIP	33K	5%	1/10W
R765	1-216-085-00	METAL CHIP	33K	5%	1/10W
R766	1-216-085-00	METAL CHIP	33K	5%	1/10W
R767	1-216-085-00	METAL CHIP	33K	5%	1/10W
R769	1-216-005-00	METAL CHIP	15	5%	1/10W
R770	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R771	1-216-089-00	METAL CHIP	47K	5%	1/10W
R772	1-216-081-00	METAL CHIP	22K	5%	1/10W
R773	1-216-033-00	METAL CHIP	220	5%	1/10W
R779	1-216-081-00	METAL CHIP	22K	5%	1/10W

< VARIABLE RESISTOR >

RV601	1-230-720-11	RES, ADJ, CARBON 4.7K
RV602	1-230-719-11	RES, ADJ, CARBON 2.2K
RV651	1-230-720-11	RES, ADJ, CARBON 4.7K
RV652	1-230-719-11	RES, ADJ, CARBON 2.2K
RV701	1-230-722-11	RES, ADJ, CARBON 22K
RV702	1-230-498-11	RES, ADJ, CARBON 47K
RV703	1-230-722-11	RES, ADJ, CARBON 22K
RV704	1-230-722-11	RES, ADJ, CARBON 22K

< SWITCH >

S302	1-571-307-11	SWITCH, SLIDE (FM MODE/ISS)
S702	1-572-537-11	SWITCH, LEAF (OPEN)

< TRANSFORMER >

T301	1-433-369-11	TRANSFORMER, BIAS OSCILLATION

< CRYSTAL >

X1	1-578-785-11	VIBRATOR, CRYSTAL 4.5MHz

< VIBRATOR >

XF701	1-579-345-11	VIBRATOR, CERAMIC 16.934MHz

****

* 1-636-846-21 POWER BOARD
****

1-533-217-31 HOLDER, FUSE
1-533-217-31 HOLDER, FUSE
3-362-688-01 SPRING (R6)
3-362-689-01 SPRING (-)
* 3-364-116-01 BRACKET (POWER)

POWER | TRANSLATION (B) | TRANSLATION (A)

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C30	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C31	1-124-907-11	ELECT	10uF	20%	50V
C32	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C33	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C34	1-124-907-11	ELECT	10uF	20%	50V
C35	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C36	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C901	1-161-772-11	CERAMIC	0.1uF	10%	25V
C902	1-164-096-11	CERAMIC	0.01uF		50V
C903	1-164-096-11	CERAMIC	0.01uF		50V
C904	1-164-096-11	CERAMIC	0.01uF		50V
C905	1-164-096-11	CERAMIC	0.01uF		50V
		< CONNECTOR >			
CN2	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN901	* 1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
		< DIODE >			
D11	8-719-911-19	DIODE 1SS119			
D12	8-719-934-21	DIODE HZS30-1L			
D901	8-719-230-02	DIODE 30DF2			
D902	8-719-230-02	DIODE 30DF2			
D903	8-719-230-02	DIODE 30DF2			
D904	8-719-230-02	DIODE 30DF2			
		< INLET >			
J901 ⚠	1-526-838-11	INLET, AC 2P (AC IN~)			
		< COIL >			
L5	1-410-971-11	INDUCTOR	10uH		
L7	1-410-977-11	INDUCTOR	100uH		
		< LINE FILTER >			
LF903 ⚠	1-424-150-11	TRANSFORMER, LINE FILTER			
		< TRANSISTOR >			
Q13	8-729-901-79	TRANSISTOR 2SC2412K-S			
Q14	8-729-901-79	TRANSISTOR 2SC2412K-S			
		< RESISTOR >			
R14	1-216-095-00	METAL CHIP	82K	5%	1/10W
R15	1-216-097-00	METAL CHIP	100K	5%	1/10W
R16	1-216-089-00	METAL CHIP	47K	5%	1/10W
R31	1-216-025-00	METAL CHIP	100	5%	1/10W
R901	1-249-420-11	CARBON	1.8K	5%	1/4W
R902	1-247-887-00	CARBON	220K	5%	1/4W
R903	1-247-887-00	CARBON	220K	5%	1/4W
		< SWITCH >			
S901	1-570-887-11	SWITCH, SLIDE (AM TUNING INTERVAL)			
		< TRANSFORMER >			
T1	1-450-126-11	TRANSFORMER, DC-DC CONVERTER			
**********					
	* 1-635-162-11	TRANSLATION (B) BOARD			
		**********			
	3-360-345-01	HOLDER (PHOTO)			
	9-911-844-XX	CUSHION (RM)			
		< CONNECTOR >			
CN691	* 1-564-725-11	PIN, CONNECTOR (SMALL TYPE) 9P			
CN692	* 1-564-723-11	PIN, CONNECTOR (SMALL TYPE) 7P			
		< DIODE >			
D691	8-719-974-59	DIODE 1SR139-100			
		< PHOTO INTERRUPTER >			
PH651	8-719-939-11	PHOTO INTERRUPTER GP-2S09-B			
		< SWITCH >			
S651	1-572-248-11	SWITCH, LEAF (REC B)			
S652	1-572-248-11	SWITCH, LEAF (HALF)			
S653	1-572-248-11	SWITCH, LEAF (NOR/CRO)			
S654	1-572-248-11	SWITCH, LEAF (METAL)			
S655	1-571-263-11	SWITCH (STOP)			
S656	1-572-248-11	SWITCH, LEAF (REC A)			
**********					
	* 1-635-163-11	TRANSLATION (A) BOARD			
		**********			
	3-360-345-01	HOLDER (PHOTO)			
	9-911-844-XX	CUSHION (RM)			
		< CONNECTOR >			
CN681	* 1-564-723-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN682	* 1-564-722-31	PIN, CONNECTOR (SMALL TYPE) 6P			

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TRANSLATION (A) TRANSFORMER VOL

Ref.No.	Part No.	Description			Remark
		< DIODE >			
D681	8-719-974-59	DIODE 1SR139-100-T-31			
		< PHOTO INTERRUPTER >			
PH601	8-719-939-11	PHOTO INTERRUPTER GP-2S09-B			
		< SWITCH >			
S601	1-572-248-11	SWITCH, LEAF (HALF)			
S602	1-572-248-11	SWITCH, LEAF (NOR/CRO)			
S603	1-571-263-11	SWITCH (STOP)			
**********					
*	1-636-847-21	TRANSFORMER BOARD			
		**********			
	1-533-217-31	HOLDER, FUSE			
	1-533-217-31	HOLDER, FUSE			
		< TRANSFORMER >			
T901 ⚠	1-450-504-11	TRANSFORMER, POWER			
**********					
*	A-3261-577-A	VOL BOARD, COMPLETE			
		**********			
	3-362-702-01	CHASSIS (VOL)			
	4-938-204-01	GEAR, WORM			
*	4-938-205-01	GEAR, COMMUNICATION			
*	4-938-208-01	WHEEL (VR), WORM			
	4-938-264-01	SPRING, RING			
	7-621-772-18	SCREW +B 2X4			
		< CAPACITOR >			
C151	1-124-903-11	ELECT	1uF	20% 50V	
C152	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C153	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C154	1-124-903-11	ELECT	1uF	20% 50V	
C155	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V	
C156	1-163-986-00	CERAMIC CHIP	0.027uF	10% 25V	
C157	1-163-014-00	CERAMIC CHIP	0.0027uF	10% 50V	
C158	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C251	1-124-903-11	ELECT	1uF	20% 50V	
C252	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C253	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C254	1-124-903-11	ELECT	1uF	20% 50V	
C255	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V	
C256	1-163-986-00	CERAMIC CHIP	0.027uF	10% 25V	
C257	1-163-014-00	CERAMIC CHIP	0.0027uF	10% 50V	
C258	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C351	1-124-443-00	ELECT	100uF	20% 10V	
C352	1-124-443-00	ELECT	100uF	20% 10V	
C360	1-126-176-11	ELECT	220uF	20% 10V	
		< CONNECTOR >			
CN351	1-580-368-11	HOUSING, CONNECTOR (PC BOARD) 12P			
		< IC >			
IC351	8-759-945-58	IC RC4558P			
IC353	8-759-962-08	IC BA6208			
		< JUMPER >			
JR351	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR352	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR353	1-216-295-00	METAL CHIP	0	5% 1/10W	
		< MOTOR >			
M301	1-541-771-21	MOTOR, DC			
		< RESISTOR >			
R151	1-216-089-00	METAL CHIP	47K	5% 1/10W	
R152	1-216-093-00	METAL CHIP	68K	5% 1/10W	
R153	1-216-071-00	METAL CHIP	8.2K	5% 1/10W	
R155	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R156	1-216-071-00	METAL CHIP	8.2K	5% 1/10W	
R157	1-216-059-00	METAL CHIP	2.7K	5% 1/10W	
R158	1-216-057-00	METAL CHIP	2.2K	5% 1/10W	
R161	1-216-041-00	METAL CHIP	470	5% 1/10W	
R162	1-216-057-00	METAL CHIP	2.2K	5% 1/10W	
R251	1-216-089-00	METAL CHIP	47K	5% 1/10W	
R252	1-216-093-00	METAL CHIP	68K	5% 1/10W	
R253	1-216-071-00	METAL CHIP	8.2K	5% 1/10W	
R255	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R256	1-216-071-00	METAL CHIP	8.2K	5% 1/10W	
R257	1-216-059-00	METAL CHIP	2.7K	5% 1/10W	
R258	1-216-057-00	METAL CHIP	2.2K	5% 1/10W	
R261	1-216-041-00	METAL CHIP	470	5% 1/10W	
R262	1-216-057-00	METAL CHIP	2.2K	5% 1/10W	
R351	1-216-029-00	METAL CHIP	150	5% 1/10W	
R352	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R353	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R360	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R361	1-216-049-00	METAL CHIP	1K	5% 1/10W	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

VOL VOLTAGE SELECTOR

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV351	1-241-359-11	RES, VAR, CARBON 100K/100K (TONE)	
RV352	1-241-359-11	RES, VAR, CARBON 100K/100K (MEGA BASS)	
RV353	1-241-088-11	RES, VAR, CARBON 50K/50K (VOLUME)	
**********			
*	1-639-014-11	VOLTAGE SELECTOR BOARD	
		**********	
		< SWITCH >	
S902 ⚠	1-570-173-31	SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)	
**********			
		MISCELLANEOUS	
		**********	
14	1-553-217-31	HOLDER, FUSE	
405 ⚠	8-848-137-11	DEVICE, OPTICAL KSS-210B	
ANT1	1-501-378-11	ANTENNA, TELESCOPIC	
C910	1-137-198-11	CAP, METALIZED FILM 1.0MF	
C950	1-137-198-11	CAP, METALIZED FILM 1.0MF	
F901 ⚠	1-532-350-00	FUSE T4A 250V (E)	
F901 ⚠	1-532-504-51	FUSE T4A 125V (JE)	
F902 ⚠	1-532-389-51	FUSE T500mA 250V (JE)	
F902 ⚠	1-532-389-51	FUSE T500mA 250V (E)	
F903 ⚠	1-532-389-51	FUSE T500mA 250V (JE)	
F903 ⚠	1-532-389-51	FUSE T500mA 250V (E)	
HP301	A-3208-357-A	HEAD ASSY, ROTARY (DECK A)	
HRP301 HE301	A-3208-354-A	HEAD ASSY, ROTARY (DECK B)	
LCD801	1-809-387-11	DISPLAY PANEL, LIQUID CRYSTAL	
M601	A-3133-405-A	MOTOR ASSY, CAPSTAN (DECK A)	
M602	A-3208-404-A	MOTOR ASSY, REEL (DECK A)	
M651	A-3133-405-A	MOTOR ASSY, CAPSTAN (DECK B)	
M652	A-3208-404-A	MOTOR ASSY, REEL (DECK B)	
M702	X-2625-132-1	GEAR ASSY, MOTOR (SLED)	
PM601	1-454-533-11	SOLENOID, PLUNGER (DECK A)	
PM651	1-454-533-11	SOLENOID, PLUNGER (DECK B)	
SP101	1-544-488-11	SPEAKER	
SP201	1-544-488-11	SPEAKER	

Ref. No.	Part No.	Description	Remark
		ACCESSORY & PACKING MATERIAL	
		**********	
	1-465-502-11	COMMANDER, REMOTE (STNDARD TYPE)	
⚠	1-551-235-00	CORD, POWER (DK-51) 2P (E23)	
⚠	1-555-234-00	CORD, POWER (DK-52) 2P (E12)	
⚠	1-590-961-11	CORD, POWER 2P (JE)	
⚠	1-569-007-11	ADAPTER, CONVERSION 2P (E23)	
*	3-369-110-01	CUSHION (BOTTOM)	
*	3-369-111-01	CUSHION (TOP)	
*	3-369-113-01	INDIVIDUAL CARTON	
	3-752-530-41	MAUNAL, INSTRUCTION (ENGLISH)	
	3-795-308-51	INSTRUCTION (E23)	
**********			
		HARDWARE LIST	
		**********	
# 1	7-682-549-04	SCREW +B 3X10	
# 2	7-685-647-79	SCREW, TAPPING +BV 3X10	
# 3	7-621-255-35	SCREW +P 2X5	
# 4	7-621-772-18	SCREW +B 2X4	
# 5	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
# 6	7-621-773-86	SCREW +P 2.6X4	
# 7	7-621-770-67	SCREW +P 2.6X6	
# 8	7-621-772-00	SCREW +B 2X3	
# 9	7-621-772-20	SCREW +B 2X5	
#10	7-627-553-47	PRECISION SCREW +P 2X4 TYPE 3	
#11	7-685-104-19	SCREW +P 2X6 TYPE 2 NON-SLIT (DECK B)	
#12	7-621-255-15	SCREW +P 2X3	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-956-174-11

Sony Corporation
General Audio Group

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SONY

SERVICE MANUAL

E Model

SUPPLEMENT-1

File this Supplement with the Service Manual.

BLOCK DIAGRAMS

9-956-174-82

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General Audio Group

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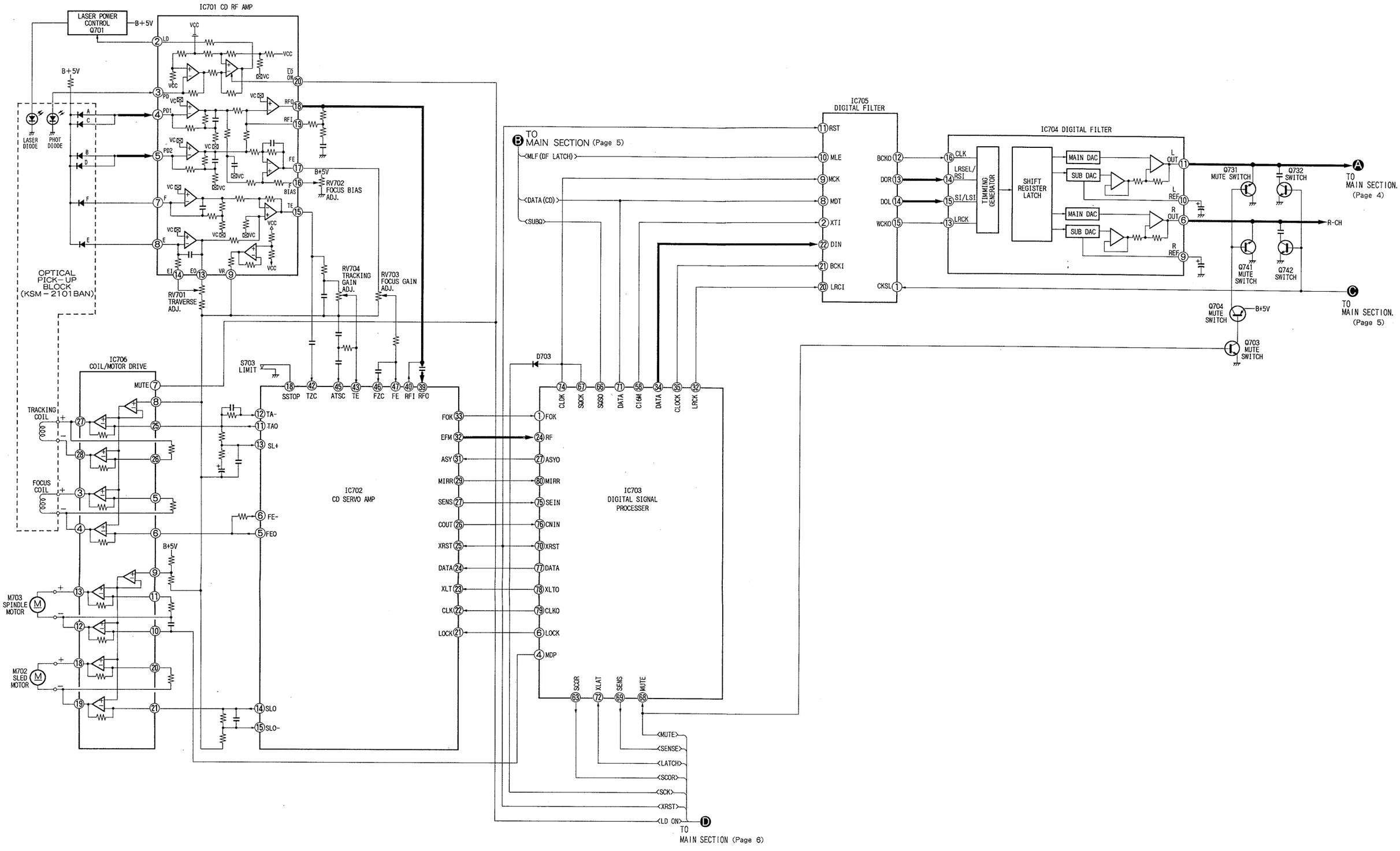
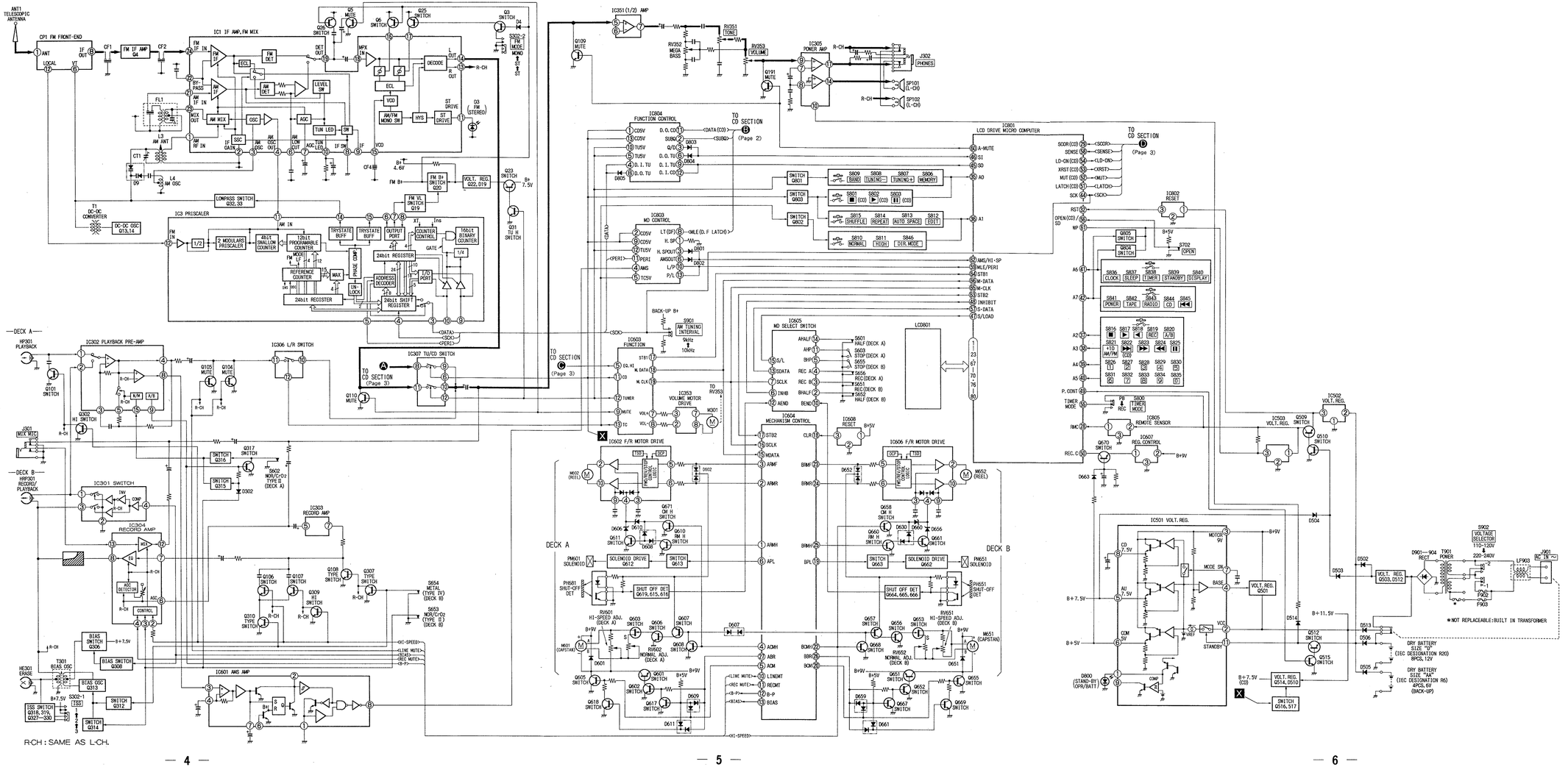
BLOCK DIAGRAM (1) (CD SECTION)


IC701 CD RF AMP
LASER POWER CONTROL Q701
B+5V
LASER DIODE
PHOT DIODE
OPTICAL PICK-UP BLOCK (KSM-2101BAN)
RV701 TRAVERSE ADJ.
RV702 FOCUS BIAS ADJ.
RV704 TRACKING GAIN ADJ.
RV703 FOCUS GAIN ADJ.
IC706 COIL/MOTOR DRIVE
TRACKING COIL
FOCUS COIL
M703 SPINDLE MOTOR
M702 SLED MOTOR
S703 LIMIT
SSTOP TZC ATSC TE FZC FE RFI RFO
TA- TAO SL+ FE- FEO SLO SLO-
IC702 CD SERVO AMP
FOK EFM ASY MIRR SENS COUT XRST DATA XLT CLK LOCK
IC703 DIGITAL SIGNAL PROCESSER
FOK RF ASYO MIRR SEIN CNIN XRST DATA XLTO CLKO LOCK MDP
SCOR XLAT SENS MUTE
D703
CLDK SQCK SQSO DATA C16M DATA CLOCK LRCK
TO MAIN SECTION (Page 5)
MLF (DF LATCH)
DATA (CD)
SUBQ
IC705 DIGITAL FILTER
RST MLE MCK MDT XTI DIN BCKI LRCI
BCKO DOR DOL WCKO CKSL
IC704 DIGITAL FILTER
CLK LRSEL/RSI SI/LSI LRCK
TIMMING GENERATOR
SHIFT REGISTER LATCH
MAIN DAC SUB DAC MAIN DAC SUB DAC
L OUT R OUT L REF R REF
Q731 MUTE SWITCH
Q732 SWITCH
Q741 MUTE SWITCH
Q742 SWITCH
Q704 MUTE SWITCH
Q703 MUTE SWITCH
R-CH
TO MAIN SECTION. (Page 4)
TO MAIN SECTION. (Page 5)
MUTE SENSE LATCH SCOR SCK XRST LD ON
TO MAIN SECTION (Page 6)

BLOCK DIAGRAM (2) (MAIN SECTION)



CFD-400

SONY
SERVICE MANUAL

E Model

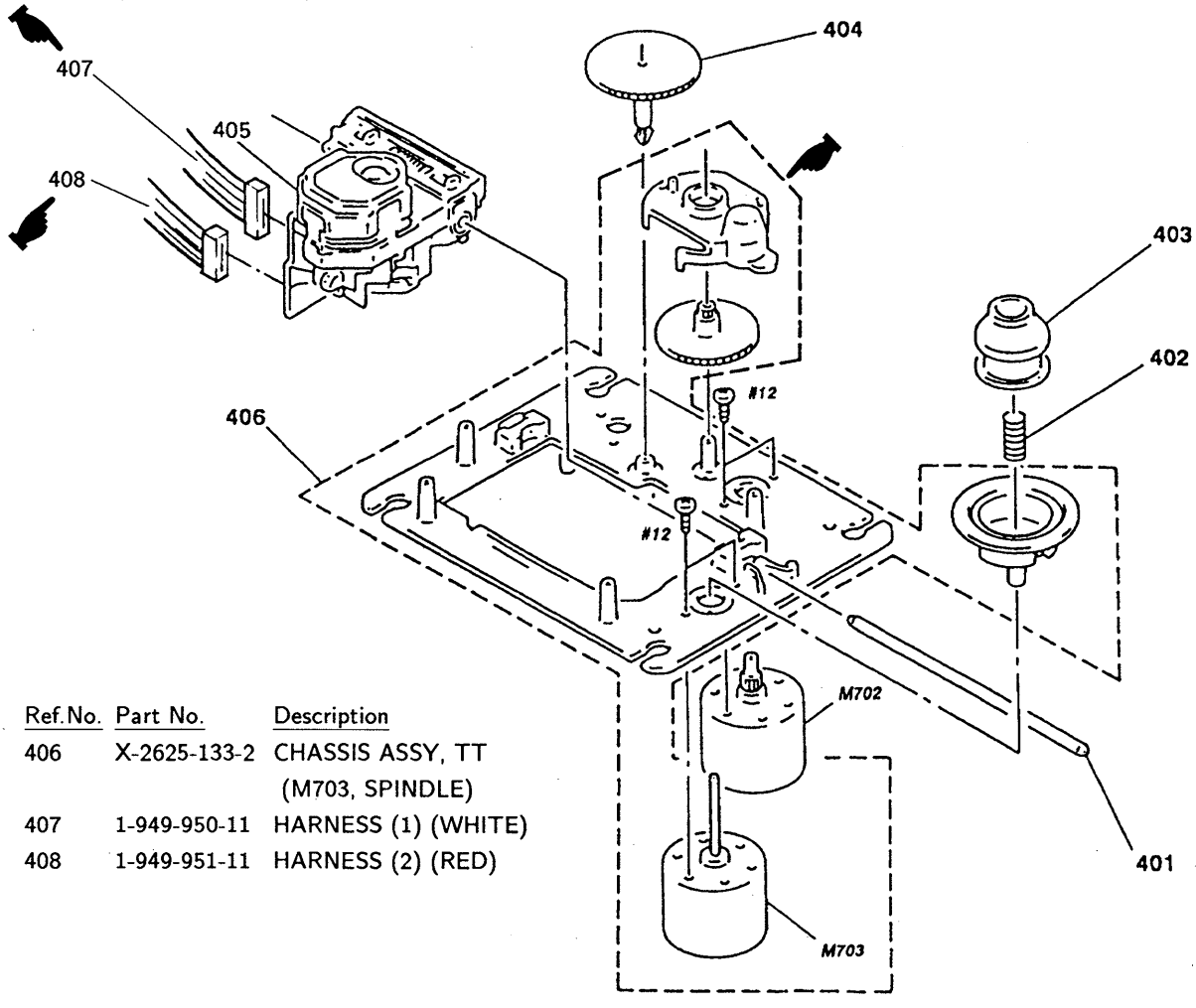
REVISED

CORRECTION-1

Correct your service manual as shown below.
Discard correction-1 (No.9-956-174-91) priviously issued.

☛ : **indicates corrected portion.** (Service Manual Page 64.)

(5) OPTICAL PICK-UP SECTION
(KSM-2101BAN)



Ref.No.	Part No.	Description
406	X-2625-133-2	CHASSIS ASSY, TT (M703, SPINDLE)
407	1-949-950-11	HARNESS (1) (WHITE)
408	1-949-951-11	HARNESS (2) (RED)

9-956-174-92

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